To Professor W. Z. Ripley

With very great appreciation

Howard Kidd

A NEW ERA FOR BRITISH RAILWAYS

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A Study of the Railways Act, 1921, from an American standpoint, with special reference to amalgamation

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PREFACE

In his last two annual messages to Congress President Coolidge has indicated that the consolidation of railways in the United States should be regarded as a problem of major importance. With this opinion American economists are undoubtedly in general agreement. The large questions of practical interest are the manner in which amalgamation may be achieved and the results that may be expected. It is these issues which will be uppermost in the formulation of a railway policy for the United States.

While the consolidation of railways in the United States is still in the debate stage, in Great Britain it has come to fruition. Great Britain can, therefore, be regarded as a laboratory in which an experiment vital to the economic wellbeing of both countries is being made. It is with this general situation in mind that the author has examined not only the British railway amalgamations but also the Railways Act, 1921, which defines the present railway policy of Great Britain.

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February, 1929.

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CHAPTER I

THE PASSING OF THE RAILWAYS ACT

"With the passing of the Railways Act, 1921, a new railway era begins."—Sir William Acworth.

A few hours after Great Britain declared war on Germany, in August, 1914, the railways of England, Scotland, and Wales—under statutory powers dating from 1871—were drafted into the military service of the nation.

Seven years after the beginning of hostilities, in August, 1921, these British railways were sworn out of service and given an honourable discharge. For seven years they were primarily machines of war; at last they became once more the instruments of commerce.

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Among the perplexities with which the Coalition Government had to contend in 1921—reparations, inter-allied indebtedness, revision of treaties, deflation, and the spectre of what many believed to be an imminent social revolution—was the railway problem.

This post-war problem of the British railways had two distinct phases: The first was the settlement of all financial claims which arose out of the seven years of government control; the second was the definition of the future policy of the State towards the railways.

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The first of these, namely, the settlement of the financial claims, has merely a passing interest in comparison with the larger question of the future policy of the State towards the railways; but it was an important issue at the time. In taking control of the railways in 1914 the Government had guaranteed to maintain their net receipts on the 1913 basis;

it had also promised to return the properties to their owners with equity unimpaired after the conclusion of hostilities. Net receipts as of 1913 were matters of fact and of record; but the question of unimpaired equity was exceedingly difficult to determine. As long as it remained unsettled, this question was bound to be a stumbling block to any kind of railway legislation; and the settlement had to be substantially satisfactory to the railways, or the Government would have lacked the support necessary for the adoption of its general policy regarding the future control of railways by the State.

The railways unofficially claimed £150,000,000[1] for compensation. The Government offered them £60,000,000. This offer was accepted. This sum, it was agreed, should be regarded as a "full discharge and in satisfaction of all claims . . . arising out of or in respect of the possession by the Crown" of the railways[2]. It was pointed out at the time that the Minister of Transport "understood that the offer of the sixty million pounds was conditional on their (the railways) acceptance of the Railways Bill"[3]. The railways agreed to the compromise on the principle that half a loaf is better than none.

Thus the first phase of the railway problem as it stood in 1921 was settled. The offer of £60,000,000 prevented a maelstrom of litigation; it also oiled the machinery of practical law making[4]. If the financial settlement did not actually secure the support of the railways for the Government policy, it at least facilitated their acceptance of it.

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The definition of the future policy of the State towards the railways was, in 1921, a far more important issue than the settlement of the book-keeping phases of war control.

In the prolonged discussion which arose on this immensely important subject, three general points of view emerged.

[1] Colwyn Report, Cmd. 1132.
[2] Railways Act, 1921, 11 (2).
[3] *Modern Transport*, May 21, 1921.
[4] 142 H.C. 379.

The first was that maintained by the "Die-Hard" Conservatives, who wished to see the Government assume its pre-war *laissez faire* attitude towards the railways[1]. The second point of view was its opposite, that of nationalization, which was sponsored by Labour for the most part. Somewhere between these two poles lay the policy advanced by the Coalition Government, a policy which advocated the private ownership of railways under a completely revised scheme of statutory regulation.

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The most vigorous spokesman of the Conservatives was the Chairman of the Great Northern Railway Company, Sir Frederick Banbury (now Lord Banbury), "the most active and the most censorious critic" of the Government programme[2].

Sir Frederick, in season and out of season, held that as far as railways are concerned the least government is the best government. In Parliament he said: "The only hope of putting the companies on a dividend basis is the restoration of the control and the management of the railways to their owners, free from any Government or Department interference, beyond, of course, the Government interference which existed before the war."[3] He viewed the middle-of-the-road course of the Government measure as a "sort of bastard nationalization"[4] which would "lead to a catastrophe for all time."

[1] The Government railway policy before the war was only relatively *laissez-faire*. From the very beginning railways were subject to some sort of legislative control. In comparison with the Government proposals in 1921, however, pre-war control was very liberal. "It is surely hardly correct to describe the pre-war condition of the railways as one produced and maintained by practically uncontrolled private enterprise. The railways came into being as the result of Acts of Parliament, and from their inception to the present day they have existed subject to statutory regulations."—*Modern Transport*, March 27, 1920.

[2] Observation made by Sir Gordon Hewart, Attorney General, 142 H.C. 639.

[3] 142 H.C. 388.

[4] *Ibid.*

Sir Frederick Banbury undoubtedly represented a substantial body of opinion in England. *Modern Transport* came to regard his proposal as the wisest and most workable course for the Government to follow. When the discussion of policy was at its height the editor declared : " We believe the safest and surest way out of the present impasse is to restore the railways to their *status quo ante bellum* and afford them facilities, denied them in the past, for forming amalgamations. The railways of this country are quite capable of working out their own salvation and their operations should not be retarded by the dead hand of officialdom."[1]

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The spokesman for the other extreme, nationalization, was Mr. J. R. Clynes of the Labour Party. Representing the Parliamentary Labour Party, Mr. Clynes offered a resolution opposing the Government measure " which not only fails to provide for the public ownership and control of railways but would prejudice the future acquisition of railways by the State on a fair and economic basis."[2]

The sentiment for the nationalization of railways was considerably stronger in England during and after the war than it was in the United States. This policy was not only supported by the Labour Party[3] but was endorsed as well by the unions representing the railwaymen[4]. Nationalization, moreover, was a policy with which the Liberal Party and the Coalition Cabinet itself had flirted.

Mr. Clynes stated in the House of Commons that in February, 1919, the Ministry had declared itself in favour of nationalization, and that in March, 1918, the Prime Minister, Mr. Lloyd George, informed the trade unions that he favoured State ownership of the railways[5]. Regarding this

[1] *Modern Transport*, September 25, 1920.

[2] *The Times*, May 26, 1921.

[3] In April, 1921, the Labour Party introduced a Bill proposing the purchase of British railways on the basis of the pre-war market value of railway securities, minus 30 per cent. depreciation.—*The Railway Gazette*, April 15, 1921.

[4] National Union of Railwaymen, Society of Locomotive Engineers and Firemen and the Railway Clerks' Union.

[5] *The Times*, May 26, 1921.

point the following comment was made at the Annual Meeting of the Great Western Railway, held in February, 1921[1]: "There is reason to believe that the present Prime Minister some years ago, when President of the Board of Trade, was rather attracted by the policy of nationalizing the railways, and it will be remembered that on the eve of the Election Mr. Winston Churchill expressed a similar view."

Mr. Lloyd George had expressed an opinion favourable to nationalization in the Spring of 1918. At that time a deputation from the trade unions waited on him and presented resolutions denouncing the private ownership of British railways. The conversation as reported in *The Times*, April 12, 1918, follows:

"Mr. Lloyd George, referring to the nationalization of railways and canals, said that he was in complete sympathy with the general character of the proposals put forward. The credit of the State would enable them to pay lower interest for borrowed capital, to pay better wages to railway workers, and to provide better facilities to the travelling and the trading public. Under the old system they had had an excess of trains serving one district on account of competition, but in another district they had been entirely in the hands of one railway, and there had been a dearth of facilities. He was certain that they could not go back to the old system. He had not met any railwaymen who thought it possible to do so. Canals had been steadily discouraged, and that had been largely due to railway competition.[2] He was not sure whether anything would make them fit for motor transport, but that

[1] *The Railway Gazette*, March 4, 1921.

[2] The present railway point of view on this canal issue is as follows:

"Railways were not necessarily opposition promotions to canals, but in many cases were promoted by the canal companies themselves. Many amalgamations between canal companies and proposed railway companies were effected. In other cases, railway companies were forced by Parliament to buy up the canals as a condition upon which their powers were granted. All these developments took place under the control of Parliament and with their sanction. It is entirely wrong to suggest that the railways have strangled the canals."—Railway Information Bureau, February 11, 1928.

was an engineering question on which he could not express an opinion."

Mr. Winston Churchill, Minister of Munitions in the War Cabinet, had also gone on record as favouring nationalization; but his commitment was rather vague. On December 4, 1918, he addressed a political gathering at Dundee. Replying to a question put to him by a heckler Mr. Churchill calmly announced that the Government had decided upon the nationalization of railways. Although made in a casual way this statement took the public by surprise. Even Mr. Churchill's colleagues in the Cabinet, who were supposed to know what was going on in the innermost circles, gave no evidence that the announcement had ever been agreed upon by the members of the Government. Thus Mr. Barnes, a member of the War Cabinet, seemed to be taken entirely unawares. This we may judge from his naïve statement a few days later, when he said that " he was glad to hear that the railways and canals were to be nationalized."[1]

It was the apparent commitment of these members of the Cabinet to the nationalization of railways[2] that formed the basis of Mr. Arthur Henderson's jibe in the course of the debate on the Government programme: " The policy of the General Election is one thing; the policy of this Bill is another."[3]

That some of the members of the Liberal Party had remembered their pre-election professions is implied by the statement made by one of the members to the House: " Many of the Liberal Party, including two Whips, are in favour of nationalization."[4]

The nationalization of railways, however, had little chance

[1] *State Railways*, January, 1919; also *The Railway Gazette*, December 6 and 13, 1918.

[2] The Ministry of Transport was described by *Modern Transport* as " not a convinced opponent of nationalization."—*Modern Transport*, March 27, 1920.

[3] 142 H.C. 708.

[4] 142 H.C. 1035.

to become a Government policy in 1921[1]. The country as a whole was weary of war-time control and joined with the railway owners in the belief that "controlled private management is better than uncontrolled State ownership."[2] Even some members of the Labour Party believed that the time for proposing nationalization was inopportune. Mr. Arthur Henderson (Labour), in explaining his support of the Government Bill, said : "I suggest that if this Bill could have been considered . . . apart from some of the more recent experiences we had during the five years of war, I think we might safely say that it (nationalization) would have received much more general support."[3]

Even if the popular demand for nationalization had been stronger than it proved to be in 1921 the fiscal position of the Government would have rendered the financial operations involved in accomplishing State ownership exceedingly difficult. While the Bill was being debated in May the railway deficit for the month of March was announced in the House of Commons to be more than £500,000.[4] This was at a time when the Government was shouldering the largest national debt in human history, and when the economic structure of Britain and of Europe seemed to be collapsing after the terrific strain of the war. It was hardly the psychological moment for proposing that the British Government should purchase a £1,200,000,000 property[5], especially when that property seemed only capable of increasing the financial burdens of the Government. *The Times* gave as its "final

[1] A nationalization scheme was proposed in the United States by Labour after the war. This scheme, known as the Plumb Plan, proposed three things : first, that the Government should purchase the railways ; second, that the Government should then lease the railways to a corporation controlled by railway employees ; third, that profits should be shared by the Government and the railway employees. Although the Plumb Plan was widely discussed in 1919–20, it received little support in Congress.

[2] Sir Sam Fay, General Manager of the Great Central Railway in 1921. *Modern Transport*, October 7, 1922.

[3] 142 H.C. 707.

[4] 142 H.C. 393.

[5] Sir William Plender estimated that the value of British Railways in 1921 was £1,223,000,000.—*The Times*, March 23, 1921.

answer to the advocates of nationalization " that " we cannot saddle ourselves with the cost of acquiring the railways."[1]

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Although the nationalization of British railways was not the dominant issue in 1921 it played curiously into the hands of the Government. It was like a two-edged sword, cutting down the opposition of Conservatives and Radicals alike.

For the purpose of whipping the Conservative " Die-Hards " into line the Government held up the bogy of nationalization as the inevitable result if its Bill were not adopted. " This Bill," said the Minister of Transport, " is the only alternative we have been able to find."[2] " Will you have nationalization or rationalization ? "[3] the Government virtually said. To a challenge of this kind the Conservatives were inclined to support what appeared to be the lesser of two evils.

Many of the zealous advocates of nationalization were led to vote for the Government Bill because they saw in it " the half-way house " to their goal.[4] The grouping features of the Bill, especially, seemed to many Socialists to be a step which would some day lead to State ownership. *The Economist* editorially commented on this Socialist point of view : " It is on paper so much easier to arrange the transfer of four than one hundred and twenty concerns, and we understand that Socialists are gleefully hailing the new system as a step towards nationalization."[5] In the same tone *The Railway Gazette* remarked that the Government programme " may be regarded as a distinct step toward nationalization."[6] Writing in 1923, Mr. W. E. Simnet, Secretary of the Amalgamation Tribunal, maintained that in the final voting on the Government programme the " Labour Party had not opposed

[1] *The Times, Railway Supplement*, August 15, 1921.
[2] 142 H.C. 716. Sir Eric Geddes.
[3] Rationalization was a word " made in Germany " to describe the organization of industry controlled by forces other than blind competition.
[4] *The Times, Railway Supplement*, August 15, 1921.
[5] *The Economist*, January 6, 1923.
[6] *The Railway Gazette*, May 13, 1921.

its passage, accepting the measure as a step towards nationalization."[1] It seems fair to say, therefore, that, although the State ownership of railways was dead as a direct issue of practical politics in 1921, it played an important part in shaping and carrying through the Government policy which was finally adopted.

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The Government, directing its course between the Scylla and Charybdis of pre-war *laissez-faire* and nationalization, finally gathered its strength from the great mass of railway and commercial interests. Considering the important changes which were introduced by this piece of legislation and the radical departures from precedent which were embodied in it the observer is surprised that any agreement on its main features was at all possible. For many months the possibility of securing substantial agreement seemed doubtful.

The Railways Bill which was presented to the House of Commons in 1921 was in process of preparation for two years. In 1919, the Ministry of Transport was created for the purpose of dealing with the post-war problems of British transport. In this interval there was a continual clamour on the part of the railways for a declaration of the Government policy. Mr. Asquith said that, in his opinion, during these two years the Minister did little but " lie on his back and contemplate the skies."[2] Finally, however, in June, 1920, the Ministry issued a White Paper[3], a document of five pages. Its title was " Outline of Proposals as to the Future Organization of Transport Undertakings in Great Britain and their Relation to the State."

[1] W. E. Simnett, *Railway Amalgamation in Great Britain*, p. 43.

[2] Mr. Asquith's statement is as follows : " The Ministry of Transport is a new creation, and it has done nothing but lie on its back and contemplate the skies, ruminate over problems, and consider whether or not something might be done to improve the transport system of this country. This process carried on by experts costs us between £400,000 and £500,000 a year. It is a gross, profligate, inexcusable waste of the taxpayers' money."—130 H.C. 2429.

[3] Cmd. 787.

The White Paper, which was the forerunner of the Government Bill, will always be regarded in the railway history of Great Britain as a revolutionary document. It proposed vast changes in railway operations and in Governmental policies of control, changes which in Great Britain were new experiments. It cut across the traditions of a century. It boldly blazed a trail, the end of which no one could foresee.

In point of time, the White Paper appeared four months after the Transportation Act of 1920 was passed by the American Congress. The British Government had, therefore, the great advantage of this American precedent, together with the long experience of the United States in regulating railways since 1887.

The policies which were advocated in the White Paper dealt with schemes designed to affect (1) railway operations and service, (2) rate making, (3) labour adjustments, and (4) financial administration. A brief outline of these proposals will serve to show what the Government had specifically in mind.

I. *Operation and Service.*

(*a*) The railways of England, Scotland and Wales, with the exception of light railways and the London underground lines, should be consolidated into a limited number of systems, probably seven.[1]

(*b*) The Government should promote standardization with respect to equipment, accounting, and statistics.

(*c*) Inter-company co-operation should be encouraged by the State.

(*d*) The construction of necessary railway facilities should be promoted by the State in the interests of economy and service.

II. *Rates.*

(*a*) Although the Government should not offer financial guarantees it should foster a general level of rates

[1] The White Paper proposed compulsory amalgamation: "Powers will be sought in a future Transportation Bill to compel amalgamations, . . . in cases where they are not voluntarily completed."—Cmd. 787.

and fares which would yield a reasonable net return, based on some standard which Parliament should establish.

(*b*) Some share of any excess above this standard return should revert to the Government for the purpose of creating a development fund " for appropriate purposes in connection with transportation."

(*c*) A new system of administrative control over individual rates should be established in order to provide stability and flexibility in the interests both of the railways and of their patrons.

III. *Labour.*

(*a*) Employees[1] should be represented on the Boards of Directors of the newly amalgamated railway systems.

(*b*) The Central Wages Board and the National Wages Board, created in 1919 to deal with questions involving wages and working conditions, should be continued.

IV. *Finance.*

The Government should have the right to supervise all matters which deal with the raising or spending of the capital funds of the railways, and it should insist that " adequate reserves for depreciation and renewals are made before dividends are issued."

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The White Paper of 1920 was naturally the centre of attack from all sides. Out of the discussion which developed the Government Bill was framed and presented to Parliament in May, 1921.[2]

The Railway Gazette,[3] a few days after the publication of the " cryptic " White Paper, stated that its first impressions were that the proposals were unsatisfactory. One week later, however, it modified its conclusions somewhat and

[1] " Employees of whom one-third might be leading administrative officials of the group, to be co-opted by the rest of the Board, and two-thirds members elected from and by the workers on the railways."

[2] The report of the Rates Advisory Committee was very important in determining the Government Bill.

[3] *The Railway Gazette*, July 9, 1920.

stated that "our second thoughts on the White Paper are that there is sufficient in the proposals to justify favourable consideration."[1] In December, 1920, however, the dissatisfaction of *The Railway Gazette* is suggested by the heading of the leading editorial dealing with the White Paper, "Nationalizing the Railways without Paying for Them."[2] In January, 1921, the editorial point of view of *The Times* was endorsed by *The Railway Gazette*: "The more the scheme is analyzed the clearer becomes the conviction that it amounts to nationalization without payment."[3]

The contemporary of *The Railway Gazette*, *Modern Transport*, at first hailed the White Paper as expressing a policy which was "built on obvious, rational, well-defined lines." "Let it be said at once," said the editor, "that we regard the proposals as being thoroughly sound in principle."[4]

Later on, however, *Modern Transport* changed both its tone and its tune. It came to regard the White Paper as "tantamount to placing in the hands of the Minister of Transport . . . the effective management of the whole of the railways of Great Britain."[5] This paper saw that the proposed grouping was bound to destroy "competition which is the only reliable instrument for the encouragement of efficiency and enterprise."[6] It discovered, five months after the White Paper was issued, that amalgamation (the word used in the White Paper) meant amalgamation and not merely grouping: "In all conscience the problem of grouping is intricate enough without adding to its complexity by interfering with the inner constitution of any of the separate companies." Finally, *Modern Transport* welcomed with delight the "adequate exposure" of the Government policy, contained in the letter of the Railway Companies' Association[7] to the Minister of Transport, as "driving the last nail into

[1] *The Railway Gazette*, July 16, 1920.
[2] *The Railway Gazette*, December 10, 1920.
[3] *The Railway Gazette*, January 14, 1921.
[4] *Modern Transport*, July 3, 1920.
[5] *Modern Transport*, November 18, 1920.
[6] *Modern Transport*, November 27, 1920.
[7] This letter will be discussed later.

the coffin of the Ministry of Transport."[1] The "obvious, rational, well defined lines" had faded out completely!

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The hostility of *The Railway Gazette* and of *Modern Transport* was shared by powerful railway interests. For example, the shareholders of the Great Northern Railway were recorded as "viewing with alarm the proposals of the Government."[2] At the annual meeting of the Great Western Railway, in March, 1921, the White Paper was referred to as the "Confiscation Paper"; and with the warning that he who sups with the devil must use a long spoon, one shareholder said that "there is every indication that the Coalition Government, after coquetting with the Soviets of Russia, have coalesced with the Syndicalists in England."[3]

The mature judgment of the railways towards the White Paper was reflected in the formal statement made by the Railway Companies' Association in a letter dated December 8, 1920, to the Minister of Transport. This judgment was, in general, that the White Paper offered no adequate solution[4] to the problems of the British railways; that most of the proposed remedies were built on quicksand; that the railways had much to lose and little to gain by endorsing the programme of the Government.

In a specific way, the conclusions of the Railway Companies' Association regarding the White Paper were as follows:[5]

I. *Operation and Service.*

(*a*) The grouping of the railways appeared to be sound in principle and was acceptable to the railways, providing no compulsion was used to bring it about

[1] *Modern Transport*, December 18, 1920.
[2] *The Railway Gazette*, July 30, 1920.
[3] *The Railway Gazette*, March 4, 1921.
[4] The Railway Companies' Association had said five months before that although it "doubted whether it (the White Paper) affords a solution" it admitted that it "might form the basis of negotiation."—*The Railway Gazette*, July 16, 1920.
[5] *The Railway Gazette*, December 17, 1920.

and financial equilibrium[1] was effected within each system. The railways, however, doubted whether competition could ever be eliminated, short of complete unification, or that large economies would result.

(*b*) Standardization by the Ministry of Transport was opposed by the railways unless the Government was willing to assume some financial responsibility.

(*c*) The railways saw no need for any new legislation regarding service, alterations, or improvements, since these safeguards were already secured to the public by the Act of 1854.

II. *Rates.*

(*a*) The railways were unable to commit themselves on the theory of the general level of rates until they knew the basis on which the income was to be estimated.

(*b*) The railways opposed the theory of the development fund, unless the Government was willing to share losses as well as profits.

(*c*) The rate-making machinery proposed by the Government was acceptable to the railways.

III. *Labour.*

The railways were completely opposed to the labour programme of the Government:

(*a*) They were "strenuously opposed to workers being represented on the Boards of Directors."

(*b*) They saw in the Central Wages Board and the National Wages Board a violation of the principle of private enterprise.

[1] This theory of "financial equilibrium" is similar to the American doctrine of consolidation, as stated in Section 5 of the Transportation Act of 1920: "The several systems shall be so arranged that the cost of transportation as between competitive systems and as related to the values of the properties . . . shall be the same . . so that these systems can employ uniform rates . . . and earn the same return on the value of their respective railway properties."

IV. *Finance.*

Regarding the financial provisions of the White Paper, the railways found that " the inevitable effect of such proposals was to take away from the Boards all control of finance," and that they were, therefore, unacceptable.

These views of the Railway Companies' Association, which were so vigorously expressed, represent the typical railway attitude towards the proposals of the Government. With the exception of the grouping features and the rate-making machinery, both of which were damned with faint praise, the Minister of Transport could count on the railways for little support in carrying out his general programme.

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The feeling of the trading and commercial interests of Great Britain towards the White Paper was shown in the resolutions of the Association of British Chambers of Commerce.

In September, 1920,[1] the General Purposes Committee of this body sent a letter to the various chambers located in Great Britain. This letter expressed an opinion which, in the main, seemed to approve the Government suggestions contained in the White Paper, as the following summary shows.

I. *Operation and Service.*

(*a*) The provisions for grouping were sound.

(*b*) The proposal for standardization was acceptable, but it must be understood that " vast changes in bridges, rolling stocks, gradients and other practical details will be demanded."

II. No mention was made of the rates provisions of the White Paper.

III. *Labour.*

The Committee was " doubtful as to the proposal to include labour representatives in the management."

IV. There was no reference to the financial proposals of the White Paper.

[1] *Modern Transport*, September 11, 1920.

The forwarding letter of the Committee concluded with the statement that "other matters in the White Paper do not call for special reference except that they appear reasonable and worthy of support."

If the Minister of Transport expected from this mild approval of one of the subsidiary committees of the Associated British Chambers of Commerce the endorsement of that body as a whole, he was doomed to disappointment. The letters of reply from the local Chambers of Commerce were summarized and a composite statement of opinion was forwarded to the Minister.[1]

The very first sentence of this summary removed any doubt regarding the attitude of the commercial interests of Great Britain towards the White Paper: "We are of the opinion that the Government control of railways, as of any other industry, is opposed to the best interests of the Nation." The following is a condensed statement of the position of the Associated British Chambers of Commerce towards the White Paper of 1920:

I. *Operation and Service.*

(*a*) Grouping of any character might actually increase rather than decrease charges. Instead of the grouping as proposed by the Ministry, the Chambers favoured a "joint railway authority." If, however, there was to be grouping, it should be voluntary and should also preserve competition.

(*b*) All matters of standardization of equipment should be left to the companies themselves.

(*c*) The proposal of the Government regarding new methods of accounting and statistics should benefit the users of railways.

II. *Rates.*

Regarding the general level of rates no comment was made; but with respect to the excess over the standard revenue the following observations were presented:

[1] *Modern Transport*, December 11, 1920.

(*a*) A large share of the excess should revert to the railways, and the balance should be divided between the railways and the community.

(*b*) The community's share in the surplus above the standard revenue should increase, and the railways' share should decrease with the annual recurrence of the excess.

III. *Labour.*

(*a*) The representation of Labour on the Boards of Directors was regarded as impracticable: "Boards should continue to be elected by the proprietors." There was no objection, however, to constituting advisory bodies representing both management and Labour.

(*b*) The Association opposed the theory of the wage boards and insisted that "any proposal that rates of pay and conditions of service of railway employees be referred in every case to arbitration, should be strenuously opposed." The Association believed that the question of wages should in some way be directly related to rates and fares.

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If the railways and the commercial interests were hostile to the Government programme as announced in the White Paper, so was Labour. The Society of Locomotive Engineers and Firemen and the Railway Clerks' Association issued a memorandum to the Minister of Transport putting forward their views.[1] It stated that the grouping seemed to be a step in the right direction, but only by nationalization, it claimed, could the resulting economies benefit the community. The rates provisions appeared to Labour to be a clever scheme for guaranteeing net earnings to the railways and for making the Minister of Transport their "whipping boy." Instead of Boards of Directors in which Labour had minority representation, as proposed by the Government, the Unions advocated that only railwaymen, representatives

[1] *Modern Transport*, February 5, 1921.

of shipping interests, technical experts, " and no one else " should compose the Boards. As for wages, the Unions gave warning that they would resist any attempt to amend all post-armistice negotiations which had resulted in the maintenance of war wages.[1]

One branch of Labour refused to discuss the White Paper at all and proceeded to introduce its own Bill in the House of Commons, providing for the nationalization of railways.[2]

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During the discussion of the merits of the White Paper, the guns of invective were intermittently turned from that " notorious document "[3] and directed to the Minister of Transport, Sir Eric Geddes. He was accused of using some of the newspapers, notably *The Pall Mall Gazette*, *The Evening Standard*, and *The Daily Herald* for purposes of propaganda to inflame public opinion against the railways. As early as June 10, 1920, *The Daily Herald* contained a full-page advertisement with the following head-lines[4]:

EVERY TAXPAYER MUST BE ON HIS GUARD AGAINST RAILWAY INTERESTS.

COLOSSAL EXPENDITURE OF TAXPAYERS' MONEY INVOLVED.

(Below the article, in heavy type)

EVERY MEMBER OF PARLIAMENT MUST STAND FIRM AGAINST RAILWAY INTERESTS AND SAFEGUARD THE NATION'S MONEY.

The editor of *Modern Transport* directly attacked Sir Eric as the arch-conspirator : " We have repeatedly drawn the attention of our readers to the insidious propaganda activities of the Minister of Transport, and we imagine Sir Eric Geddes and his associates must be pleased with their

[1] As a result of the war, wages were increased 150 per cent. over the 1913 level. This situation is discussed in Chapter V.

[2] *The Times*, March 23, 1921. *See* foot-note [3], page 12.

[3] Phrase used by *The Railway Gazette*, February 15, 1921.

[4] *Modern Transport*, October 2, 1920.

handiwork. Of course, the culminating point of the whole proceedings was reached on November 3rd, when *The Daily Express* published beneath glaring head-lines, and with copious use of heavy type, the report of an interview alleged to have been granted by the Minister of Transport to their representative. The effort, as anticipated in official circles, served the purpose of bolstering up the Ministry as the watch-dog of the public against the actions of the rapacious railway companies."[1]

That propaganda was used by both sides is unwittingly admitted by the editor of *Modern Transport* : " At no time in the last thirty years has a Minister of State received such universal condemnation in the Press."[2] A few months later the thirty years had been lengthened to " forty or fifty " in an editorial which ended with the blast : " Truth to tell, the Ministry of Transport during the past twelve months has been an abortion."

When the smoke of the war of words was over and the Railways Bill had practically become law, *The Times* attempted to assess the personal merit of Sir Eric Geddes. The final estimate of the editor was not at all flattering :[3]

> " When a broad balance is struck we doubt whether the future historian will hold that the influence of Sir Eric Geddes and the Ministry of Transport has been entirely wholesome. The Transport Minister has been rather like a pike in a carp pool, stirring up all the lesser fishes, gobbling up a good deal but accomplishing nothing. He has been the victim of ' solemn deceivings of his vast desires.' He has not saved money for the nation or the companies, and efficiency would have been restored without his aid."

* * * * *

Sir Eric Geddes assumed a difficult post in becoming the first Minister of Transport in 1919. Anyone put in a similar position during this chaotic period in British history would have brought down on himself a storm of abuse. Sir Eric

[1] *Modern Transport*, November 27, 1920.
[2] *Modern Transport*, August 7, 1920.
[3] *The Times*, *Railway Supplement*, August 15, 1921.

was accused of many things for which he could hardly be held responsible. He could not be blamed for the plight of the railways nor for that of the traders when he first took office; yet the spirit of criticism was so rampant that it seized upon him as the responsible victim for many things which were, to say the least, beyond his control.

If a train was late, owing to conditions of fog, the circumstance was liable to be made the subject of a question in Parliament! If a farmer in some obscure agricultural district was delayed in shipping his potatoes to London because of a scarcity of wagons, the Minister was blamed, although he had in no instance pretended to direct railway operations. At one time he was accused of the "wastage of 250,000 fish, thrown into the sea because, owing to failure on the part of the Minister, trucks were not supplied at a small port in Cornwall."[1] On investigation it was found that there had never been a railway line within seven miles of the port! When rates were increased[2] on the advice of the Rates Advisory Committee, the odium fell on the Minister of Transport "who could not be held responsible for the economic upheaval which necessitated the alterations."[3]

When Sir Eric Geddes became Minister of Transport, *The Railway Gazette* described him as a man of "big ideas, much courage, and one who has the habit of getting things done. The whole country and Press give him unqualified support."[4]

Sir Eric's prestige came from his brilliant career as a railwayman and as a Minister of the Crown, serving in the Cabinet of Mr. Lloyd George. Within four years he had been Deputy General Manager of the North Eastern Railway, Deputy Director-General of Munitions Supply, Director-General of Military Railways, Inspector-General of Trans-

[1] *The Railway Gazette*, September 16, 1921.

[2] In 1919 rate increases were suggested by the Rates Advisory Committee, from 30 per cent. on goods in Class A, to 100 per cent. for "smalls" plus a flat rate which varied from 3d. to 1s. 6d. in certain cases.

[3] *The Railway Gazette*, September 16, 1921.

[4] *Ibid.*

portation, Navy Comptroller, First Lord of the Admiralty, and a member of the Imperial War Cabinet.

Within a few weeks after Sir Eric took office as Minister of Transport his popularity vanished; in its place appeared vehement opposition. He seemed to please nobody. He had been commissioned to lead the railways into the Promised Land, but they were still wandering in the Wilderness. He was too radical for the Conservatives and too conservative for the Radicals; standing between both he got their cross-fire. Much of the opposition to the White Paper proved to be opposition to Sir Eric Geddes.

* * * * *

Such then was the hostile temper of the railway, trading, and Labour interests towards the policy to which the Government was committed and towards the Minister of Transport. Both seemed to be without friends. *Modern Transport* saw in the coming Parliamentary struggle over the proposed Bill a "war to the knife":[1] "There is every indication that the next few months will witness one of the most interesting and at the same time one of the greatest conflicts in which the railways ever found it necessary to engage."

But the storm suddenly became a zephyr! The Bill which the Government introduced in the House of Commons was regarded by the railways as a "good Bill." *The Railway Gazette* declared that apart from the Scottish lines only five railways opposed it.[2] In presenting the Bill, the Minister of Transport said that "it is not opposed by the vast majority of railway companies. It is not opposed, and perhaps it is supported by the large trading interests. It is blessed in a lukewarm way by the Shareholders' Association. It is also blessed by those interested in railway shares on the Stock Exchange."[3]

The letter sent by the Great Western Railway Company to its shareholders may be taken as indicating powerful railway support for the Government measure: "The Bill, in the

[1] *Modern Transport*, February 26, 1921.
[2] *The Railway Gazette*, May 13, 1921.
[3] 142 H.C. 358.

opinion of a majority of the companies, goes far to meet the views of the companies in its main principles and broad features."[1] Two days after the Bill was introduced in the House of Commons, *The Times* said that the "general view of a large number of railway companies is that, in the main, the Railways Bill is acceptable as a fair settlement."[2] On the following day *The Economist* referred to the Bill as an "agreed measure."[3] *Modern Transport*, which a few weeks before dolefully expected the worst,[4] greeted the Government's programme with a welcome almost friendly : "The Bill has much in its favour, and, generally speaking, it appears to be an honest attempt to solve the problem." Looking back on the scene after two years, one writer remarked that the "Act represents a large measure of agreement between the Government, the railways, the trading community, and the Trade Unions."[5]

What had happened, of course, between the time of the publication of the White Paper in June, 1920, and the presentation of the Government Bill in May, 1921, was a general *rapprochement* among the various interests involved. The Government Bill was a compromise ; and by the time it became an Act of Parliament it was still more so. But however much the compromise the basic principles of Government control of railways in Great Britain were fundamentally changed.

* * * * *

The law which Parliament finally enacted was, in general, a triumph for the Government on the broad principle of State regulation of railways ; but the modification in matters of detail made the Government Bill far more acceptable to the railways and to the traders than the White Paper.

[1] *The Economist*, May 21, 1921.
[2] *The Times*, May 13, 1921.
[3] *The Economist*, May 14, 1921.
[4] After violently attacking the Minister of Transport, the editor wrote, referring to the forthcoming Bill : "We may expect the birth of a child worthy of its parent."—*Modern Transport*, February 26, 1921.
[5] W. E. Simnett, *Railway Amalgamation in Great Britain*, p. 35.

The three important concessions to the railways were with respect to the representation of Labour on Boards of Directors, the development fund, and the control of railway finances.

A statement of the most important principles of the Railways Act follows in the order of development which was presented in the analysis of the White Paper.

I. Operation and Service.

(*a*) The Act of 1921 provided that the railways of Great Britain, with the exception of light railways and certain other lines, should be grouped into four systems. The grouping, in the main, accorded with the scheme of the Railway Companies' Association, contained in its letter of December 8, 1920, to the Minister of Transport;[1] and the adoption of longitudinal lines of grouping, by which the railways of Scotland were linked with the English systems, effectively silenced the opposition of the Scotsmen. The grouping was to be put into practical effect not later than July 1, 1923.

(*b*) The Government won its contention that equipment, accounting, and statistics should be standardized.

The Minister of Transport was given the power to require the railways to "conform gradually to the measures of standardization of ways, plant, and equipment,"[2] after consultations with experts, and after the Railway and Canal Commission, a court established in 1888, was satisfied that the interests of the investors were not threatened.

Accounts were to be rendered in "such a manner as may be determined by the Railway Clearing House, with the approval of the Minister,"[3] or by the Minister in consultation with approved accounting experts.[4]

[1] *The Railway Gazette*, December 17, 1920.
[2] Railways Act, 1921, 16 (2).
[3] Railways Act, 1921, 77 (1).
[4] This was an addendum to the Act of 1911.

Further statistics as defined by an elaborate schedule in the Act were to be compiled and submitted to the Minister.[1] The following is the extent of the additional statistical data which the railways now are compelled to furnish the Ministry of Transport :[2]

1.	Freight receipts, tons and ton-miles ..	Monthly
2.	Tons and receipts of selected commodities conveyed at freight train rates ..	Monthly
3.	Commodity ton-miles	Monthly
4.	Passenger journeys and receipts	Monthly
5.	Passenger miles	Periodically
6.	Quantities and receipts of parcels and miscellaneous traffic conveyed at coaching train rates	Monthly
7.	Train and engine miles and hours of company's engines over own and other systems	Monthly
8.	Trains and engine miles and hours over company's system by own and other companies' engines	Monthly
9.	Locomotives in use	Monthly
10.	Loaded and empty wagon miles	Monthly
11.	Consumption of coal, electricity and oil by locomotives	Monthly
12.	Construction and repair of rolling stock ..	Half-yearly
13.	Marshalling yard statistics	For a period of one month each half-year
14.	Census of staff showing number of men in each grade at each rate of pay ..	Annually
15.	Tonnage conveyed on canals separating principal commodities	Monthly
16.	Analysis of time spent by ships in port at railway-owned docks	Monthly

[1] Railways Act of 1921, 77 (2).

[2] Railways Act of 1921, Schedule 8.

17. Tonnage dealt with and cost of working at selected goods depots	For a period of one month each half-year
18. Tonnage carted and cost per ton at selected stations	For a period of one month each half-year
19. Capacity of wagon stock of various types	Annually

(*c*) The Minister of Transport was given further power to compel railways to " adopt schemes for co-operative working or common use of rolling stock, work shops, manufacturing plants, and other facilities," after consultation with specialists in these fields, and after the Railway and Canal Commission is satisfied that the vested interests are not adversely affected.[1]

(*d*) For the protection of the public the State asserted its right to compel railways, on proper application of interested parties, to afford reasonable facilities and to make extensions and improvements, including minor alterations not exceeding £100,000. This right of the State is hedged about by two restrictions: first, such application must receive the approval of the Railway and Canal Commission, which must be satisfied that the shareholders' interests are not injured; second, the improvements must be in the interests of " public safety . . . or of trade, or of any particular locality." Any changes of the character suggested above, made on the initiation of the carriers, must receive the approval of the Minister of Transport.[2] These provisions are an extension of various statutory rights given to the public by previous Acts, notably those of 1854 and 1888.

[1] Railways Act, 1921, 16 (2).

[2] Railways Act, 1921, 16 (1).

II. Rates.

(*a*) Although the Railways Act of 1921 in no way guaranteed railway earnings it did announce a new policy regarding the general level of rates. The level of rates and fares in the future should be such as would "together with the other sources of revenue . . . yield, with efficient and economical working and management, an annual net revenue" equivalent to that of 1913. Provision was also made for remuneration on account of capital expenditure made since 1913; also for capital which in 1913 had not become fully remunerative.

(*b*) The development fund idea of the White Paper, which had been vigorously opposed by the railway companies and the traders, was not mentioned in the Railways Act. In its place another scheme was substituted which seemed especially favourable to the traders. Under the new proposal any substantial excess over the standard revenue which was deemed to indicate a permanent revenue condition should be shared by the railways and the community.[1] According to this scheme, if 100 represents a permanent return in excess of the standard revenue, there is to be a general reduction in rates, absorbing 80; the remaining 20 is to be awarded to the railways as a permanent addition to the standard revenue. It is important to observe that any surplus earned above the standard revenue prior to such revision is to be retained by the railways. The reduction in rates, if decided upon by the Rates Tribunal, cannot take place for some time after the annual reports are

[1] The American method of dealing with this problem is through the "recapture of excess earnings." A railway is allowed to earn 6 per cent. of its value. Anything above this total is regarded as "excess earnings." One-half of this excess may be retained by the carrier; the other half must be paid over to the Interstate Commerce Commission. From the funds so collected the Commission may make loans to carriers or purchase equipment for the purpose of leasing it to the carriers.

compiled and the position is examined. Although the railways seem to gain by this lag they are at a corresponding disadvantage if they should fail to earn the standard revenue.

(*c*) The most radical provision of the rates section is that which established the Rates Tribunal having general power to fix such reasonable rates as would enable the railways to earn the standard revenue under conditions of "efficient and economical management."[1] The Rates Tribunal was created as a body having control over railway charges similar to that exercised by the Interstate Commerce Commission in America since the Hepburn Amendment of 1906. The full force of the administrative powers of the Rates Tribunal was to be delayed until the "appointed day," which was ultimately fixed by the Tribunal to be January 1, 1928.

III. Labour.

(*a*) The Railways Act of 1921 was silent regarding the presence of railway employees, "elected by and from the workers," on Boards of Directors.[2] This omission was significant and merits a brief discussion.

The agitation for employee representation on the Boards of British Railways began in 1917. At that time a Government Report proposed: first, "that there should be better utilization of the practical experience and knowledge of the work people"; and second, that there should be developed "means of securing to work people a greater share in, and responsibility for . . . the conditions of their work."[3] In the same year the National Union of Railwaymen

[1] The phrase used in a similar connection in the Transportation Act of 1920, passed by the American Congress, is "honest, efficient and economical management."

[2] The White Paper had stated that "the Government are of the opinion that the time has come when the workers—both officials and manual workers—should have some voice in management."—Cmd. 787.

[3] The Whitley Report, *The Railway Gazette*, December 17, 1920.

announced the Leicester Programme, which, among other things, acclaimed their slogan, " Equal representation . . . for this Union upon the management of all the railways."[1] It was with reference to this Programme that *The Railway Gazette* saw red : " The appetite of the National Union of Railwaymen has so developed that they are now pursuing a plan which, if successful, would end in confiscation."[2]

The Minister of Transport, Sir Eric Geddes, favoured the policy of having workers represented on Boards of Management. He maintained that the best way of promoting contentment among labouring men is to make them partners, either by sharing profits with them or by having them participate in management. But he argued that the sharing of profits is only possible where there are profits to share ; and that it is successful only in those industries where the annual turnover is high in comparison with the capital invested. He claimed that in the case of British Railways these conditions did not exist. Sir Eric, therefore, concluded that, granting his premise, the sharing of management rather than profits was the only alternative.[3]

As early as March, 1919, moreover, six months before the Ministry of Transport was established, in an understanding with the Trade Unions, the Government made a vague promise that " when the new Ministry is set up, it is the intention of the Government to provide for the organization, and avail itself fully of assistance, co-operation and advice from the workers in the transportation industry."[4]

[1] *The Railway Gazette*, December 17, 1920. " Programme of November, 1917."

[2] *The Railway Gazette*, December 17, 1920.

[3] *Modern Transport*, November 6, 1920.

[4] *The Railway Gazette*, December 17, 1920.

It was in keeping, therefore, with the personal ideas of the Minister of Transport and with the Government promise of 1919 that the White Paper declared that "the time has arrived when the workers . . . should have some voice in management."[1]

The proposal, however, was anathema to the railways. As has been observed, in its formal statement the Railway Companies' Association was uncompromisingly opposed to this policy.[2] The Association of British Chambers of Commerce also has been recorded as favouring the continuance of "Boards as at present constituted, elected by the proprietors."[3]

The Railway Gazette in December, 1920, characterized Sir Eric's Labour scheme as a "piece of window-dressing" and feared "that before long the Minister of Transport will realize the folly of using such inflammable material for decorative purposes. We cannot believe the shareholders will tamely submit to such a confiscation of their property."[4] In April, 1921, the same journal stated that "the point in regard to which the strongest feeling exists is the proposal in the White Paper that workers should be associated with railway Boards in management."[5] One staunch opponent of the presence of Labour representatives on Boards of Directors said: "The Stock Exchange will be ready to welcome employees on the Boards of the various railways as soon as the National Union of Railwaymen are prepared to welcome shareholders on their Executive Committee."[6]

[1] Cmd. 787.

[2] Sir George Gibb said: "It is inconceivable that shareholders should be deprived of their rights."—*The Railway Gazette*, December 17, 1920.

[3] *Modern Transport*, December 11, 1920.

[4] *The Railway Gazette*, December 17, 1920.

[5] *The Railway Gazette*, April 29, 1921.

[6] *The Railway Gazette*, November 19, 1920.

If the Government Bill had included the programme of the Minister of Transport regarding employee representation on directorates, it would undoubtedly have foundered on the rocks of a determined railway opposition. Fortunately, however, for the Government the Minister was able to clear the atmosphere one week before the Bill was introduced: "I am more than glad to tell the House that I have received to-day from the Railway Companies' Association a document which shows that the two sides, Labour and Employers, have come to a very considerable measure of agreement."[1]

The "very considerable measure of agreement" was a bargain struck by Labour and the Railway Companies' Association by which the Government policy regarding Labour representation on the Boards should be dropped entirely; and as a concession to Labour the National and Central Wages Boards, in which the workers would be adequately represented, should be continued. The Labour Correspondent of *The Times* was, therefore, able to announce: "The demand for representation on the Boards of Directors, insistently made by the railwaymen's leaders, will be forgone and in place of such representation, joint councils of officers and elected employees will be formed."[2] Sir Eric Geddes later told the House that "Labour has deliberately surrendered the offer of the Government."[3]

Mr. J. H. Thomas, Secretary of the National Union of Railwaymen and a member of the Parliamentary Labour Party, who at one time had said, "We are going to be Directors," declared in the House: "So far as we are concerned, our action has been clear and above board, and that of the railways has been the same. . . . We in this case

[1] *The Railway Gazette*, May 6, 1921.
[2] *The Times*, May 5, 1921.
[3] 142 H.C. 357.

merely adopted the common-sense plan of seeing where we could work together, and we did so."[1] Mr. Thomas saw that one side would have to yield, and he believed that in the strategy of practical politics Labour should abandon its claim for representation on the Boards : "The Railway Chairman, having stated that the scheme is impossible and that neither they nor the shareholders would have anything to do with it, the representatives of the railwaymen had to choose whether they would accept an arrangement which would enable both parties to come together."[2]

(*b*) The Central Wages Board and the National Wages Board, which were constituted in 1919, were continued under the sanction of the Railways Act of 1921. To these Boards "all questions relating to rates of pay, hours of duty or other conditions of service shall be referred."[3] The Central Wages Board was composed, according to Act, of eight representatives of Labour and eight representatives of the railways. The National Wages Board, to which appeals might be taken from the Central Wages Board, was constituted as a body of seventeen: six were to represent Labour ; six were to represent the railways ; four were to represent the users of railways ; and an independent Chairman was to be appointed by the Minister of Labour. Provision was made by the law for establishing councils on each of the four railways which would consist of representatives of the workers and of the railway companies. Especial arrangements were also instituted for dealing with difficulties between the railway companies and their own police forces. By this general plan the machinery of conciliation was established without any suggestion of compulsory arbitration.

[1] 145 H.C. 986.
[2] *The Times*, August 10, 1921.
[3] Railways Act, 1921, 62, 63, 64.

The Railways Act contained in the interest of Labour one very important provision which was not mentioned in the White Paper. This dealt with the problems of labour displacement as a result of amalgamation.

According to the Act any person who had been a permanent employee for five years before August, 1921, in any of the absorbed or constituent companies was assured (*a*) continuance of employment in the newly formed company ; (*b*) a position no lower than his former one ; or (*c*) compensation.[1] On the strength of this protective feature, *The Times* observed that " there is no reason to anticipate wholesale dismissals."[2]

IV. *Finance.*

The Railways Act of 1921 gave to the Government no new powers over railway finances. The White Paper had asserted the principle of State control over capital expenditure and over the depreciation and renewal policies of railways. The silence of the Act on these matters was a distinct victory for the railways.

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The Railways Bill was presented to the House of Commons on May 11, 1921. It came up for second reading on May 26 and was debated for four days. No marked enthusiasm on either side was apparent in the debate. Except for occasional flashes from Sir Frederick Banbury, from the Scottish representatives, or from the members from Hull, who were disgruntled over the scheme of grouping, there was little impassioned oratory. One member remarked : " The apathy[3] with which this Bill is regarded in the country is to me very deplorable."[4] *The Railway Gazette* described the debate as

[1] Railways Act, 1921, Third Schedule.
[2] *The Times*, *Railway Supplement*, August 15, 1921.
[3] *The Railway Gazette* blamed this apathy on the " dead hand of Government control."—*The Railway Gazette*, June 3, 1921.
[4] 142 H.C. 169.

a " dreary business "[1] and said that the full report of the proceedings occupying two hundred and twenty-two pages of Hansard represented 177,000 words, " largely futile." The House passed the second reading of the Bill, 259 to 65.

The Bill was sent to Committee where during the summer " like a wounded snake it dragged its slow way along."[2] On July 27, the report stage was reached, and on August 9, the House voted 237 to 62 in favour of the Bill.

The House of Lords made no important amendments. At five o'clock on the afternoon of August 19, the Bill received the Royal Assent.[3] Four days before, at midnight, August 15, 1921, the railways of Great Britain had been handed back to their owners by the Government.

One chapter was closed ; a new one was opened.[4]

[1] *The Railway Gazette*, June 3, 1921.

[2] *The Economist*, July 2, 1921.

[3] The statute is officially recorded as Railways Act, 1921 (11 & 12 Geo. 5. ch. 55).

[4] Two days following the passage of the Railways Act, the Financial Editor of *The Times* remarked : " Railway Stocks were distinctly firmer."

CHAPTER II

THE NEED FOR RAILWAY ECONOMIES

"The reorganization of the British railways ranks as a solid achievement among the works of post-war reconstruction."—COLONEL ASHLEY, Minister of Transport.

THE Railways Act, 1921, which has been described, was designed to promote the "more efficient and economical working of the railways of Great Britain."

To carry out this broad programme radical changes of policy were proposed by the Statute, changes which were bound to affect the British railways in several important aspects: in organization and operation, in rate making, and in labour adjustments. With the first of these, namely, changes produced in the organization and operation of British railways by the Railways Act, 1921, the remainder of this volume is chiefly concerned.

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In the field of railway organization and operation two very important ideas were introduced by the Railways Act, 1921: amalgamation and standardization. By the translation of these ideas into practical realities, the Government hoped that substantial economies would be effected and that, as a result, railway charges would be reduced.

This efficiency programme, proposed by the Government, was developed at a time when two problems on the British railways were acute: The first was with respect to rates; the second concerned finance. Only by helping to solve these problems ultimately could the Government scheme for amalgamation and standardization be justified.

In order to understand, therefore, the timeliness of the Railways Act, we shall examine the British railway position in 1921, from the standpoint of rates and finance.

I

The Railways Act, 1921, was framed and passed on the clear assumption that railway rates would be lowered, although there was no specific commitment in the Act itself. The statement of the Minister of Transport in bringing in his Bill, that if his measure were adopted "the rate tendency is bound to be downward,"[1] appears to have been accepted on all sides as the assertion of the obvious. Were rates too high on British railways ?

* * * * *

It is difficult to make accurate comparisons between rate levels existing in different countries inasmuch as conditions of transport are by no means uniform. Length of haul, character of service, credit arrangements, units of measurement, and size of shipments vary considerably in all countries of the world. As an illustration of this point, we shall observe the difficulties which arise in making comparisons between rate levels prevailing in Great Britain and in the United States.

1. Compared with the United States, Great Britain is a short haul country. The following table shows how, from the standpoint of the average length of haul, the situation in the two countries differs :[2]

AVERAGE HAUL PER TON
RAILWAYS OF THE UNITED STATES AND OF GREAT BRITAIN

Year	United States (Class I Railways)	Great Britain
	Miles	Miles
1921 -	326·36	57·58
1922 -	331·42	52·51
1923 -	322·69	51·72
1924 -	327·14	51·72
1925 -	331·78	53·95
1926 -	332·11	60·05

[1] 142 H.C. 356.

[2] Annual Reports of the Interstate Commerce Commission, and the Returns of Capital, Traffic Receipts and Working Expenditures of the Railway Companies of Great Britain.

It is estimated that the average haul of pig iron and finished steel from factory to port is 30 miles in Great Britain and approximately 500 miles in the United States. In view of the relatively greater costs for shorter hauls, it is natural to expect a higher ton-mile rate level on British than on American lines.

2. In Great Britain considerable traffic moves on a "collection and delivery" basis. In this case the rate obviously includes more than the railway transit charge which is the unit of quoting in the United States. Beginning with January 1, 1928, these "C and D" rates will be disintegrated in order to show cartage separately from terminal and conveyance charges.

3. Free time for unloading and demurrage charges are also different in the two countries. In America, generally speaking, the free time allowed is forty-eight hours ; and the demurrage charges are \$2.00 per day for the first four days and \$5.00 thereafter. In England the following is the situation :

Type of Wagon (Freight Car)	Free Time	Demurrage
Coal, coke, patent fuel :		
London - - -	96 hours	6d. (12½ cents)[1]
Country - - -	72 hours	6d. (12½ cents)
Ordinary wagons - -	48 hours	3/– (·75)
High capacity wagons :		
16–20 tons - -	48 hours	4/– (\$1·00)
20–30 tons - -	48 hours	6/– (\$1·50)
30 or more tons - -	48 hours	10/– (\$2·50)

4. In America freight bills must be paid within forty-eight hours ; in Great Britain credit for one month or more is extended to established traders. In the latter case, there-

[1] This is siding rent. Except in Scotland and north eastern England mineral wagons are generally privately owned. In those places, however, where railway mineral wagons are employed, the demurrage does not exceed 6d.

fore, a railway rate represents the service of a finance company as well as that of a transport agency.[1]

5. The long ton of 2,240 pounds is the unit of weight in Great Britain; in the United States the short ton of 2,000 pounds is used.

6. Consignments are smaller in bulk on British than on American railways. "The average loading of a car in England varies from approximately three tons, in the case of general merchandise freight, to nine and a half tons in the case of coal and mineral traffic. The average American loading is 27.2 tons a car for all freight, 50 tons for mineral freight, and 28.2 tons for forest products traffic. The average loadings of a car of merchandise freight on British railways, however, compare favourably with the average American loadings of less-than-car-load freight. The average in England is approximately three long tons freight, or 6,720 pounds, while in the United States car loads of less-than-car-load freight of about five tons are not uncommon."[2]

The statement of these variables in the traffic equation between Great Britain and the United States suggests that abstract rate comparisons are not to be taken too seriously. In a general way, however, the variables which have been mentioned favour the conclusion that we should expect the rate per ton-mile to be higher in Great Britain than in the United States.

* * * * *

Even though allowance is made for these variables rates seem to have been inordinately high in Great Britain before and after the War. Sir Eric Geddes, Minister of Transport in 1921, stated in the House of Commons that average pre-war ton-mile rates in the United States were 0.4 pence; in England, 0.9 pence.[3]

[1] In the United States the forty-eight hour rule is railroad practice; the Interstate Commerce Commission has set the limit at ninety-six. During the last session of Congress a Bill was introduced permitting carriers to extend credit for seven days provided the receivers of freight put up a bond to guarantee payment. This Bill did not pass.

[2] Dr. G. Lloyd Wilson, *The Traffic World*, August 20, 1927.

[3] 142 H.C. 345.

As a result of the War the following rate increases over the 1913 level were in effect on September 1, 1920:

Coal and coke	100 per cent. + 6d. per ton. Maximum addition 4/–
Iron ore -	100 per cent. + 6d. per ton. Maximum addition 4/–
Class 1–5 -	100 per cent. + 1/–
Small parcels	150 per cent.

The Minister of Transport informed the House of Commons that the average effect of all additions was to make rates 112 per cent. and fares 75 per cent. higher than the pre-war level.

The increase in rates in Great Britain was less than the increase in prices and wages which at one time were more than 200 per cent.[1] above the pre-war level; but rates constituted a burden on British traders apparently much heavier than that borne by the business interests of other countries.

In 1921, Sir Eric Geddes declared: "You will find—I think there is but one exception, perhaps China—that for moving freight we are the most costly country to the user of railways."[2] *The Economist* complained that rates in the United States were only 33 per cent. as high as those in Britain, and concluded that "British trade cannot stand rates at that level."[3] Sir William Acworth, in 1924, estimated that average ton-mile rates in England were two and a half times the prevailing level in the United States.[4] Mr. A. J. County, Vice-President of the Pennsylvania Railroad, in a paper read before the American Economic Association in 1924, said: "British freight rates are double the ton-mile rate of the United States, even after deducting from British rates the cost of collection and delivery."[5]

Although there is some discrepancy in these estimates, there is unanimity on the essential fact that British rates were much too high. The following table presents the

[1] Letter of Rates Advisory Committee to Minister of Transport, December 22, 1920.

[2] 142 H.C. 346.

[3] *The Economist*, December 3, 1921.

[4] *Elements of Railway Economics*, Sir William Acworth, p. 201.

[5] *American Economic Review*, March, 1924.

average receipts per ton-mile in the United States and Great Britain :[1]

Year	United States (Class 1 Railways)	Great Britain[2]
	Cents	Cents
1921 -	1·275	3·758
1922 -	1·177	3·103
1923 -	1·116	2·656
1924 -	1·116	2·569
1925 -	1·097	2·605
1926 -	1·081	2·799

* * * * *

It was this high level of railway freight charges prevailing in Great Britain which was the key to the first part of the Government programme : general rate reductions. As has been suggested, it was a policy on which there was fairly general agreement among the various interests of the business community, including some of the railways.

The Editor of *The Economist* saw clearly that rates at least could not be increased : " That it is impossible to increase rates and fares for the simple reason that this would kill traffic and so produce no additional net revenue may be taken

[1] Annual Reports of the Interstate Commerce Commission and Returns of Capital, Traffic, Receipts and Working Expenditures of the Railway Companies of Great Britain.

[2] Although freight rates are higher, passenger fares are lower in Great Britain than in the United States. Further, passenger receipts constitute only 15–20 per cent. of the total revenue on American lines ; in Great Britain the figure is 45–50 per cent. The average receipts per passenger mile in the two countries are as follows (*ibid.*) :

Month and Year	United States (Class 1 Railways)	Great Britain
	Cents	Cents
September, 1923 - -	2·980	1·896
September, 1924 - -	2·899	1·831
September, 1925 - -	2·866	1·770
February, 1926 - -	3·045	1·630

for granted.[1] In 1921, the Chairman of the Midland Railway said that his Board favoured the general reduction in rates " not because they wish to be regarded as altruists and philanthropists but because, as business men, they think that a reduction in charges is a fair business risk and ought to be taken."[2] Sir George Paish maintained " that traffic will not bear the high rates and fares . . . that the remedy lies . . . in increased efficiency in management and real economy in operation."[3] Mr. Balfour Browne, K.C., speaking on behalf of the British Industries, told the Rates Advisory Committee that " no one realized more than the railways that it was cheapness that attracted traffic and that stabilized their returns ; they realized they have suffered from increased rates."[4]

* * * * *

Soon after the passage of the Railways Act, 1921, the general level of rates on British railways was lowered. The following summary table tells the story of the reductions made in 1921, 1922, and 1923 :[5]

	Percentage Increase over Pre-war	
	From	To
1. General Parcels :		
1921, 1 October -	110	106
1923, 1 January -	106	96
1 May - -	96	65
2. Coal :		
1922, 1 January -	100 + 6d. flat rate	75 + 4d. flat rate
1 August -	75 + 4d. ,,	60 + 2d. ,,
1923, 7 August -	60 + 2d. ,,	50 + 2d. ,,

[1] *The Economist*, June 4, 1921.
[2] *The Times*, February 23, 1923.
[3] *Modern Transport*, December 17, 1921.
[4] *Modern Transport*, December 11, 1920.
[5] With the exception of passenger fares, these reductions took place after the lodgment of applications for reductions with the Rates Tribunal, but the reductions were made without orders of that body.

	Percentage Increase over Pre-war	
	From	To
3. Iron Ore :		
1921, 1 November	100 + 6d. flat rate	75 + 3d. flat rate
1922, 22 May -	75 + 3d. ,,	50 + 3d. ,,
1 December -	50 + 3d. ,,	40 + 2d. ,,
4. Iron and Steel :		
1922, 22 May -	100 + 9d. flat rate	75 + 6d. flat rate
1923, 1 May -	75 + 6d. ,,	60 + 4d. ,,
7 August -	60 + 4d. ,,	50 + 4d. ,,
5. Class 1–5 :		
1922, 1 August -	100 + 1/– flat rate	75 + 6d. flat rate
1923, 1 May -	75 + 6d. ,,	60 + 6d. ,,
7 August -	60 + 6d. ,,	50 + 6d. ,,
6. Passenger Traffic :		
1923, 1 January -	75	50

* * * * *

Having reduced their rates the railways of Great Britain were in need of recouping the loss of revenue by drastic reductions in costs. The latter had increased by leaps and bounds since 1913. The comparison between receipts and expenditure for 1913 and 1920 shows the critical position of the profit and loss accounts which greeted the railways at the beginning of 1921 :[1]

	1913	1920
Total Receipts -	118,700,000	235,216,000
Total Expenditures -	75,527,000	228,260,000

During the first eight months of 1921, the railway deficit amounted to £19,584,000.[2] The flag of bankruptcy seemed to be hoisted high above the railway properties of Great Britain.

[1] *Returns, Minister of Transport*, 1922.

[2] From January 1 to August 15, when the railways were handed back to the owners. The 1920 expenditure included war-time arrears in maintenance. The 1921 deficit was largely due to the prolonged Coal Strike in that year and to deferred maintenance work which was undertaken at a time of peak prices.

In such an atmosphere of financial chaos rate reductions were initiated. It was obviously the opportune moment for the Government to propose a lowering of costs through amalgamation and standardization.

II

The lowering of rates seemed to demand the reduction of railway costs in 1921. But even if rates had not been lowered the financial position of the British railways would have constituted a powerful argument for greater efficiency.

The Government brought forward its scheme of amalgamation and standardization at a time when the financial position of the British railways was anything but satisfactory.

The condition of distress was reflected in the barometers of railway credit. The market value of the Midland Railway had fallen from £130,000,000 in 1913 to £82,400,000 in 1920.[1] A study of ten railway shares, listed on the London Stock Exchange, shows, on January 15, 1921, a decline of 20–50 per cent. from the 1913 level. It was thus while the outlook for the railways was dark that the Government proposals for economies on a large scale was launched.

It was not, however, primarily as a solution to the immediate financial problems of the British railways that amalgamation and standardization were proposed ; it was rather as part of a general policy which would, it was thought, insure financial stability for the future that they were advocated.

The general financial policy, which in 1921 was thought of as the formula of solvency, was the theory of the standard revenue. In the future, the railways were to be allowed to charge rates which, together with other sources of income, and under efficient management, would produce net receipts equivalent to those earned in the year 1913. Certain allowances were to be added ;[2] but, fundamentally, the intention

[1] *The Railway Gazette*, November 5, 1920.
[2] These will be discussed in Chapters IV and V.

was to restore the railways to their prosperous pre-war condition.[1]

* * * * *

In view of the importance of the year 1913 which came to be regarded as the standard as far as railway finances were concerned, a description of the British railway position at that time will be presented as a parenthesis in the discussion of the standard revenue.

Before the war British railways "represented the largest investment of any, not excluding the national debt."[2] In the decade 1902–12 they had raised new capital easily and had built 2779 miles of new tracks.[3]

It is true the Minister of Transport told Parliament that "before the war the value of railway shares was declining, and the difficulty of raising capital was increasing the problems of the railways; their future, their organization, and their finance were the subject of grave consideration right down to the year before the war."[4] This situation, however, is not to be attributed to an inherent weakness in the pre-war railway position. It was due, rather, to the technical position of the money market, brought about by the rise of prices and interest rates since 1900.

Due to a 4 per cent. increase[5] in exceptional rates, and the prevalence of general business prosperity, 1913 was regarded by the railways as a highly successful year. Even *The Railway Gazette*, which said at first that it saw "nothing to be enthusiastic over,"[6] later admitted that "in the matter of gross receipts the railways of the United Kingdom had done exceedingly well in 1913."

The following extracts from some of the railway company reports for 1913 show the tone of optimism which prevailed before the stroke of war had convulsed the economic life of Great Britain:

[1] Railways Act, 1921, 58.
[2] W. J. Stevens, *The Railway Gazette*, November 19, 1920.
[3] *The Times*, January 12, 1921.
[4] 142 H.C. 345.
[5] The 4 per cent. increase was effective July, 1913.
[1] *The Railway Gazette*, January 2, 1914.

The London and North Western : "The year was the most profitable one that the company has enjoyed since the late 90's."[1]

The Midland : "The past year has been the most profitable period the Midland has enjoyed since the early seventies."[2]

The Great Western : "The year 1913 has been an exceedingly prosperous year for the Great Western."[3]

The London and South Western : "The South Western Railway obtained a fair participation in the good times which prevailed in 1913."[4]

North Eastern : "Last year (1913) was a period of wonderful prosperity for the North Eastern Railway."[5]

Lancashire and Yorkshire : "We enjoyed a prosperous year, thanks largely to the activity of the cotton trade."[6]

Great Central : "The past year has been the most profitable the Great Central has enjoyed since it constructed its extension into London."[7]

In January, 1914, *The Railway Gazette* observed that "the yields derivable from railway stocks at the present time are so good that even if only moderate advances are made in dividends, the stocks have many attractions for investors."[8]

* * * * *

Under the standard revenue theory of the Railways Act, 1921, it was the avowed wish of the Government that the railways should be restored to the prosperity which they had enjoyed in 1913. But it was no more than a wish ; it was not a guarantee. At the moment the Railways Act was passed, far from earning any revenue at all, the railways faced a deficit of £19,500,000.

If the railways were to earn their standard revenue,

[1] *The Railway Gazette*, February 27, 1914.
[2] *Ibid.*
[3] *Ibid.*
[4] *The Railway Gazette*, March 6, 1914.
[5] *Ibid.*
[6] *The Railway Gazette*, February 20, 1914.
[7] *Ibid.*
[8] *The Railway Gazette*, January 9, 1914.

therefore, it was necessary for them to adopt one of three policies : increase rates, reduce rates, or drastically lower costs.

Increasing rates over the 1921 level was practically impossible for reasons we have already discussed. If these reasons had not been enough, the appearance of a powerful competitor, motor transport, would have made the suggestion entirely futile.

The theory of lowering rates in order to earn the standard revenue is that by this means volume of traffic will be stimulated and revenues increased. In 1922–1923, the British railways lowered their rates, but the results were disappointing. The standard revenue, as determined by the Railway Rates Tribunal, is approximately £50,000,000 per annum ; but the railway earnings have been far below this figure, as the following statistics show :

Year	Net Earnings[1]
	£
1922 - -	47,000,000
1923 - -	43,000,000
1924 - -	39,000,000
1925 - -	37,000,000
1926 - -	19,000,000
1927 - -	42,000,000

If the manipulation of rates alone cannot be relied upon to produce the standard revenue, the place of large scale economies in the successful working of this financial formula is obvious. The lowering of costs, together with the scientific adjustment of rates, is the only means by which the British railways can hope to earn the standard revenue.

* * * * *

Even if the standard revenue were actually earned, there would still be a strong incentive, from the standpoint of the railways and the traders, to introduce economies on a large scale.

[1] Railway Returns, Ministry of Transport. The figure for 1927 is from the Preliminary Returns.

The year 1913 was a good one for the railways, but, due to the war, values had changed. The money income of 1913 had a different purchasing power in 1921. Only if the general price level were stabilized on a pre-war basis could the standard revenue be regarded as satisfactory.

The return on railway capital in 1913, was, in terms of the price of money in 1921, not at all impressive. The remuneration paid to all classes of stockholders by the railways in 1913 averaged 4·17 per cent.[1] This return was very satisfactory when gilt-edged securities were selling on a 3–3½ per cent. basis[2]; but in the face of the altered credit situation after the war, 4·17 per cent. seemed much less attractive.[3] Sir Josiah Stamp[4] pointed out that " it cannot be claimed that these standard earnings when attainable in practice confer any favour upon the railway shareholders at the expense of the country, for, owing to the change in the value of money and the rise in the sterling expression of the national income, railway profits have been forced down to a lower percentage of total profits than they have enjoyed for seventy years."

Assuming that the 1913 net earnings were satisfactory to the existing holders of railway securities[5] in 1921, many expressed the fear that in the future railway financing might be embarrassed by establishing the standard revenue on this basis. Thus there were many protests in London against accepting the pre-war level of earnings as satisfactory to the railways in the future. In March, 1920, *Modern Transport* pointed out that " no transportation agency is able to carry on its operations on the basis of a pre-war income."[6] In

[1] *Ministry of Transport, Preliminary Returns*, 1927, p. 5.

[2] Sir Eric Geddes once referred to the unlimited capital that was available before the war at 2½ per cent., but this was an over-statement. —*Modern Transport*, November 6, 1920.

[3] The Interstate Commerce Commission fixed 5¾ per cent. as a " fair return on a fair valuation " for railways in the United States.

[4] President of the London, Midland and Scottish Railway, *The Times* (*Annual Financial and Commercial Review*), February 7, 1928.

[5] Since 75 per cent. of the railway stocks bear a fixed return and since most ordinary shares paid satisfactory dividends in 1913, this assumption seems justified.

[6] *Modern Transport*, March 27, 1920.

July, 1920, *The Railway Gazette*[1] said : " If capital is to be attracted to the railway industry, it is essential that railways should earn more than formerly." *The Economist* in January, 1921, referred to the " modest pre-war income, which looks pitiful enough in the light of the present price of capital."[2] The British Chamber of Commerce saw that " if the attempt of the Government to tie down the net revenue to the pre-war revenue succeeds, the effect will be to write off all the deferred and ordinary stocks which were not earning a dividend before the war,"[3] but which represented equities and potential earning power. The Railway Companies' Association took the position that " if it is intended to mean that the rate on capital is not to exceed the pre-war rate, the basis proposed (1913 net earnings) is inadequate and would not render it possible to raise . . . the further capital admittedly required."[4]

* * * * *

As a solution of this general financial problem the Government in 1921 proposed the following policy :

Charges must come down. It is to be hoped that the rate level which is established and the increased volume of business which results will, under conditions of efficient management, yield a net revenue on a 1913 basis, known as the standard revenue. At the same time we are proposing a scheme of reorganization which we think will reduce costs very considerably. This reduction in costs may make it possible for the railways to earn more than the standard revenue in any one year. If so, we shall be willing to have the railways retain this excess. If, however, this excess proves to indicate a permanent revenue condition, we propose to reduce charges so that 80 per cent. of the excess is reflected in lower charges ; the 20 per cent. can be retained by the railways in the form of an addition to the standard revenue.

[1] *The Railway Gazette*, July 2, 1920.
[2] *The Economist*, January 19, 1921.
[3] *Modern Transport*, September 11, 1920.
[4] Letter to Minister of Transport, December 8, 1920.—*The Railway Gazette*, December 17, 1920.

If, therefore, the railways argue that the 1913 net returns are inadequate, the economy programme which is proposed gives them the chance to increase their net revenues and thereby to fortify their credit position.

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In a word, the Government committed the railways to a reduction both of charges and costs as part of one large programme. Charges can be reduced by a stroke of the pen ; the lowering of costs is a more difficult matter. To the consideration of this latter point we shall now proceed.

CHAPTER III

THE PLAN OF RAILWAY GROUPING

"The groups were anything but compact geographically; some of them almost assumed the shape of a star-fish."—*The Economist.*

THE Government's general scheme for producing railway economies included two major programmes: amalgamation and standardization. In this study, the two will be considered as one: To group is to standardize.

Under the Railways Act, 1921, one hundred and twenty railways were merged into four. The task of consolidating so many long-established companies, representing over £1,200,000,000 of capital and 20,000 miles of line, is an amazing chapter in railway history.

The importance of grouping these one hundred and twenty railways was appreciated by the Minsiter of Transport, the railways, and the public. Sir Eric Geddes, Minister of Transport, spoke of the grouping as the "principal feature" of the Railways[1] Act. *The Times* believed in 1921 that "the reorganization of the railways into four groups is the most important feature of the changed conditions under which the companies will take up the task of shaping the future of their undertakings."[2]

*   *   *   *   *

The four groups were specified in the Act itself. Theoretically the grouping was a mandate of Parliament. The railways were told what to do, and how to do it. In actual practice it was both a dictated and a negotiated settlement, in most cases the latter.

[1] 142 H.C. 716.

[2] *The Times, Railway Supplement*, August 15, 1921.

[By courtesy of *The Railway Gazette*

Fig. 1—The Southern Railway System

The Act designated the groups as follows :

1. The Southern Group.
2. The Western Group (The Great Western).
3. The North-Western, Midland and West Scottish Groups.
4. The North-Eastern, Eastern and East Scottish Group.

The names later selected by the Railways were : Southern ; Great Western ;[1] London, Midland and Scottish ; and London and North Eastern.

* * * * *

The largest company, organized from the North-Western, Midland and West Scottish group, is the London, Midland and Scottish Railway. It comprises thirty-five companies, eight constituent and twenty-seven subsidiary, with a total of 7,217 miles of line. Its capital amounts to £422,422,975.[2] The London, Midland and Scottish Railway runs in a north-westerly direction through the heart of industrial England to the northern end of Scotland.

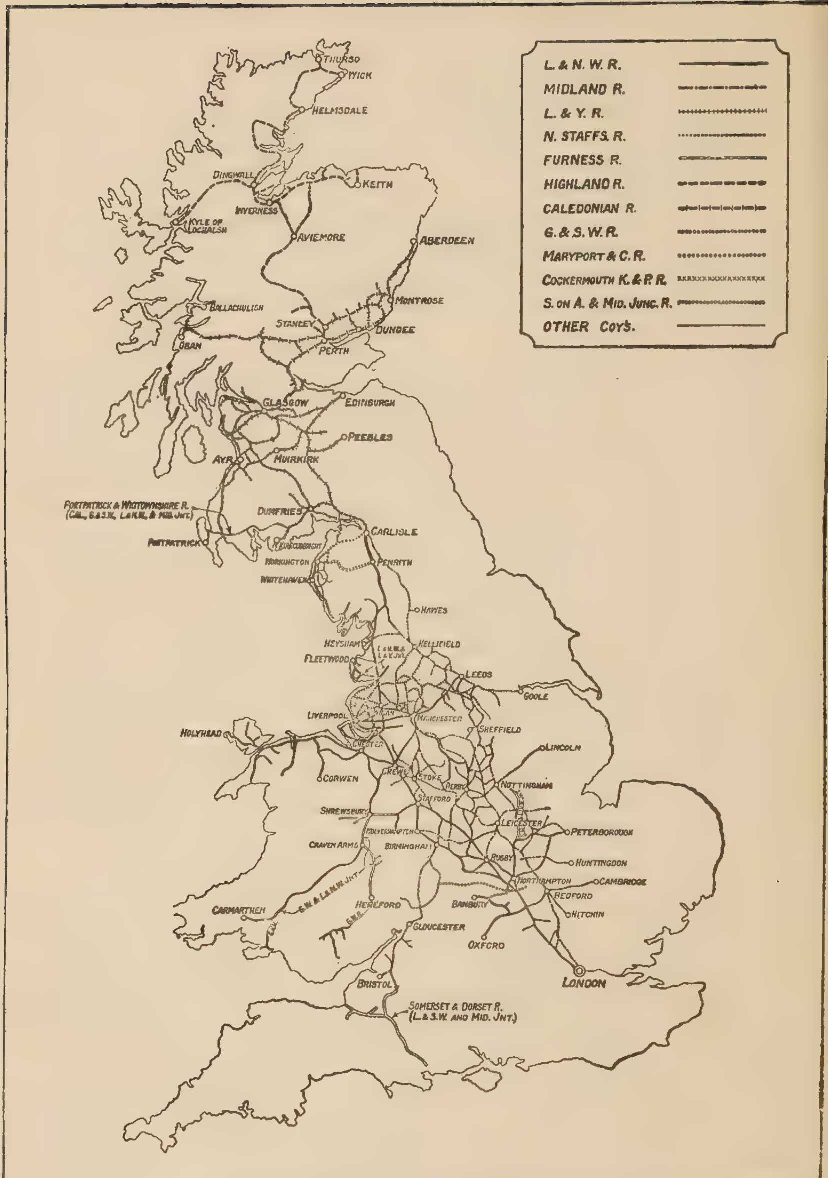
The Great Western Railway, which represents a capital investment of £168,000,000, and has 3,817 miles of line, provides transport facilities for the whole of South Wales and operates a great chain of docks from Bristol to Fishguard. It is composed of seven constituent and twenty-six subsidiary companies. The Great Western runs in a generally east-west direction. Its area forms a triangle based on London, Liverpool and Penzance.

The Southern Railway, with its six constituent and fourteen subsidiary lines, is the smallest of the four groups. Its capital investment is £149,000,000 ; its length of line, 2,229 miles. The Southern furnishes facilities not only for the south and south-west of England, but also very important Channel services which link England with the Continent.

The London and North-Eastern Railway, formed from the North-Eastern, Eastern, and East Scottish group, includes six trunk lines and twenty-six subsidiary companies.

[1] The Great Western Railway retained its identity and became the amalgamated company of the group.

[2] The capital is of 1926 for all the companies.



[By courtesy of *The Railway Gazette*

Fig. 2—The London, Midland & Scottish Railway System

It comprises 6,722 miles of line. Its capital receipts total £322,319,973. This system extends from London through the coal, iron, and shipbuilding areas of the eastern part of England to northern Scotland.

*   *   *   *   *

For purposes of analysis, the grouping of British railways will be studied under three general headings: the plan, the process, and the results. In the present chapter, the plan of grouping will be discussed; the process and the results of amalgamation will be the subject-matter of the two chapters following.

In working out its plan of railway grouping, the British Government was compelled to deal with the following problems: competition, the grouping of weak and strong railways, the disposition of joint lines, and the grouping of companies formerly affiliated.

I.

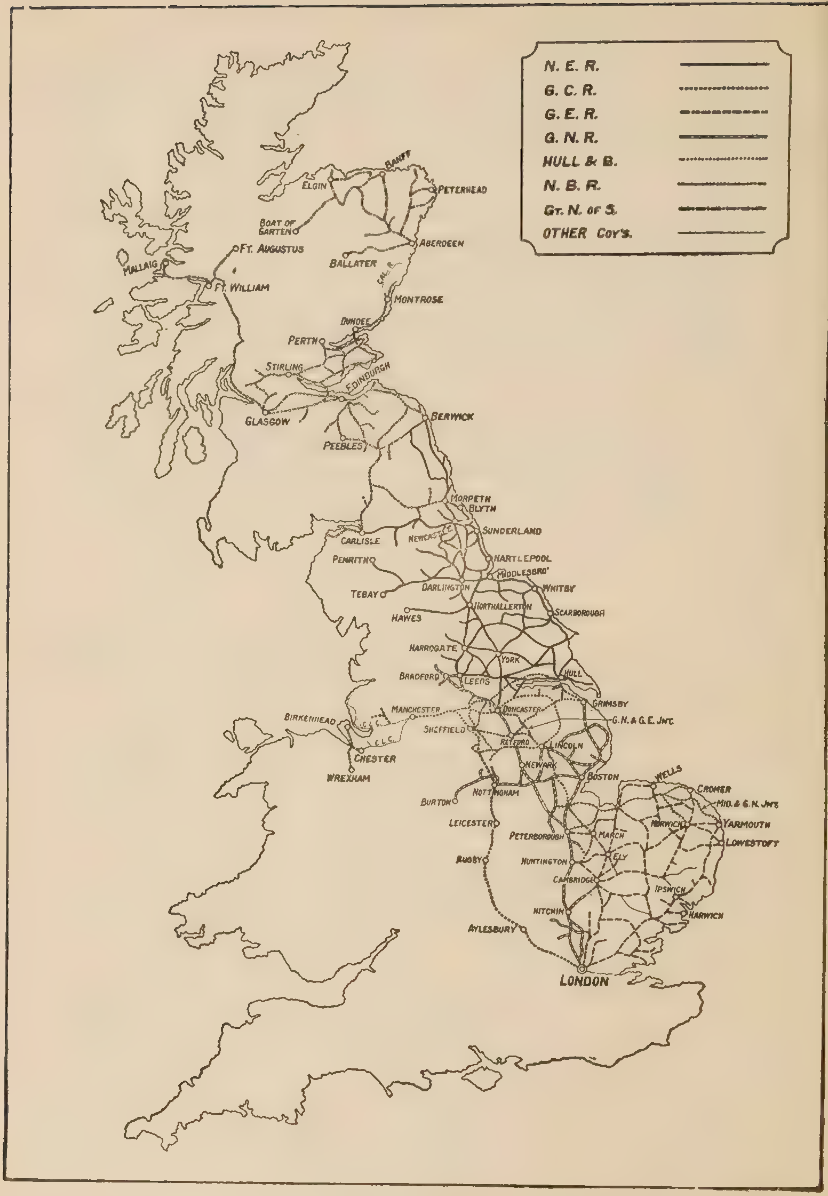
The White Paper[1] of 1920 asserted that the general plan of grouping should be such that " direct competition between the groups will, as far as possible, be eliminated."

Assuming for the moment that this was the British policy, we find it at variance with the theory of railway consolidation in the United States under the Transportation Act of 1920. In America, grouping was endorsed as a public policy only if competition is preserved as fully as possible and if the existing routes and channels of traffic are maintained.

The paragraph of the Transportation Act of 1920 which states the American position reads as follows:

" The Commission shall, as soon as practicable, prepare and adopt a plan for the consolidation of railway properties of the continental United States into a limited number of systems. In the division of such railways into such systems under such plan, competition shall be preserved as fully as possible, and wherever practicable the existing routes and channels of trade and commerce shall be maintained."[2]

[1] Cmd. 787.
[2] Section 5.



[By courtesy of *The Railway Gazette*

Fig. 3—The London & North-Eastern Railway System

The debates in Parliament on the British policy of grouping and the discussions in the Press before the Railways Bill became a law show clearly that railway amalgamation and the elimination of competition was popularly regarded as synonymous.

Sir Eric Geddes in bringing in his Bill said to the House : " If you are cultivating your garden you do it much better if you know you are going to get the whole profit and advantage of it, than if you know that your next-door neighbour would come in the middle of the night and take away a portion of the produce. That is exactly what we have been doing in relation to the railway companies. We have asked them to develop the traffic of the country, and then subsequently have allowed an outside company to come in, or run a line alongside, or have given them running powers, thus practically taking away or stealing the traffic of the original company. I would hope that the House will see that a railway will develop and endeavour to promote the prosperity of the community through which it runs, if it knows that when it succeeds it will have the advantage of it."[1]

According to Sir Eric, railway competition before the war was largely destructive :[2] " Such competition as there was, was the wrong kind of competition ; it was the competition that tried to pinch somebody else's traffic." This opinion was in harmony with the conclusion of the Departmental Report of 1911 which said : " The effects of the limited competition still existing between companies are not necessarily to the public advantage."[3]

An illustration of the type of competition of the " pinch " class, referred to by the Minister of Transport, is contained in the Minutes of Evidence, taken before the Select Committee on Transport in 1918 :[4]

" One of the effects of competition was that traffic was being consigned at owner's risk, but the railway companies

[1] 142 H.C. 353.
[2] 142 H.C. 350.
[3] Report, p. 11.
[4] Testimony of Sir Arthur Shirley Benn, paragraph 326.

were paying claims on the same footing practically as if the goods were consigned at company's risk. That was due to the competition between different companies for traffic. Also the canvassers for different companies, if a man complained of his rate on certain traffic, said, " You put it on our line and call it ' hardware ' and you will get such and such a rate "—which, again, is a facility which may be welcome to the trader, but whether he is entitled to it is another matter. The railway companies found they had gone rather far, and, in fact, they were losing money on it."

According to the Minister of Transport, this kind of competition would become a thing of the past under the new grouping scheme; only competition among areas would remain.

* * * * *

Much of the public opposition to the grouping of the British railways was based on the assumption that effective competition would be eliminated.

The Birmingham Chamber of Commerce voiced this fear in a formal memorandum: " The experience of past amalgamations has shown that the only apparent result has been the curtailment of facilities and the reduction in standards of service."[1] The National Federation of Iron and Steel Manufacturers expressed distrust of unrestrained monopoly; it took the position that amalgamation may be a good policy, provided there is " reasonable assurance that some substitution for competition in promoting efficiency and low costs is found."[2] *Modern Transport* believed that unless the benefits of competition, which it called the " crucial factor," could be secured, any plan of grouping would be disastrous to the traders.[3]

* * * * *

In reality, however, Parliament paid little thought to the elimation of competition. Four days before the Bill received the Royal Sanction, *The Times* observed that the " new

[1] *Modern Transport*, September 25, 1920.
[2] *The Economist*, July 2, 1921.
[3] *Modern Transport*, September 25, 1920.

[By courtesy of *The Railway Gazette*

Fig. 4—The Great Western Railway System

groups are not given undisputed sway over a particular area, but all at some points have to reckon with the intrusion of lines belonging to other groups."[1]

Sir William Acworth, writing in 1921, saw that "competition for all important traffic will continue much as heretofore."[2] *The Times*, in 1921, found in the new organization of the railways no disposition to "relinquish channels of penetration."[3] It went further in 1925 and declared that "it was not the intention of the Railways Act to eliminate competition between the groups. . . . Many regard the retention, in all important areas of the railway lines, of two groups as essential to promote the competition which will increase efficient service."[4] *Modern Transport* saw the possibility of more instead of less competition as a result of consolidation: "Although the policy of grouping would undoubtedly eliminate much of the senseless competition of pre-war days, the rivalry between the newly combined undertakings is likely to be the keener."[5] Mr. Charles Napier Lawrence, Chairman of the London, Midland and Scottish Railway, speaking at Manchester in 1923, said: "I am anxious to disabuse your minds of the idea that these amalgamations mean in any way monopoly. It is going to be quite the reverse, and competition between the various groups will be just as severe as heretofore."[6]

* * * * *

One section of the Railways Act[7] was so drawn that competition between railways serving the same common points would actually be insured. Thus if two railways, X and Y, start at A and reach B, and the distance via X is greater than via Y, X is placed in a competitive position with Y. According to the Railways Act, if the distance via X is greater than via Y, by an amount less than thirty per cent., the rate

[1] *The Times*, *Railway Supplement*, August 15, 1921.
[2] *The Economic Journal*, March, 1923.
[3] *The Times*, *Railway Supplement*, August 15, 1921.
[4] *The Times*, November 12, 1925.
[5] *Modern Transport*, October 11, 1924.
[6] *The Times*, May 5, 1923.
[7] Section 52.

charged by X may be the same as that charged by Y, which is assumed to be the lower. If the distance by the circuitous route is greater than thirty per cent., the consent of the Minister of Transport, and of the Rates Tribunal in some cases, is necessary before X is given the right to charge a rate equal to that of Y.[1]

* * * * *

However much the Government might have wished to eliminate competition according to its profession in the White Paper of 1920, it faced a condition and not a theory. It was confronted with the difficulty of dealing with systems which had grown up with reckless disregard of geography. They were not drawn on nice geometrical lines, separated into clearly defined areas. The railways crossed and re-crossed. They invaded each other's territories haphazardly; they were like tangled threads woven in a fabric which has no design.

Lord Monkswell in his book, *The Railways of Great Britain*, takes the position that the British railways have been the victims of a geographical situation, and that, therefore, no scientific zoning is possible: "Though the unregulated way in which British railways came into existence is no doubt the most important reason for the present absence of clean-cut geographical edges, it must be remembered that Great Britain is not a country that would be easy to parcel out satisfactorily, even if a complete fresh beginning could be made. A long, straggling country with the capital near one corner and many thickly populated industrial districts very irregularly scattered in various directions would not in any case present facilities in any way comparable with those found in France for the establishment of a really neat system of railways."

In general, it would be difficult to find a more striking

[1] The attitude of the Interstate Commerce Commission in America in interpreting the circuitous route is reflected in the following decision: "We ordinarily treated a line as circuitous if it exceeded the direct line in mileage by not less than fifteen per cent. We do not hold that this rule should be one of universal application. . . ." —24 I.C.C. 192, 195.

example of the planlessness and the wastefulness of the unrestrained competitive system, which marked the early development of modern capitalism, than the British railway development. As a result of excessive railway building, British railway mileage exceeds that of any other country in the world in terms of area, as the following shows :[1]

Country	Railway Mileage per 100 sq. miles of territory
United States	6·93
Canada	1·07
Germany	19·65
France	15·64
Great Britain	25·69
Italy	10·73

The British Government had to deal as best it could with conditions as it found them in 1921. It decided at once that too many complications would arise if branch lines were separated from the parent systems. The Government left it for the future to rearrange the railway map in more logical form.

Even the White Paper of 1920, though declaring in favour of the elimination of competition, admitted the practical problem :[2] " It is recognized that a more logical grouping of the existing systems might result if regard were had exclusively, either to geographical or to operating conditions ; but the amalgamation of complete undertakings as the initial step will avoid many of the difficulties that would arise if undertakings had to be divided. It would be open to the new companies to exchange between themselves lines which project from the territory of one group into that of another, and at a later stage it may become necessary to require them to do so."

As *The Economist*[3] remarked, " at the outset, the groups

[1] *Archiv Für Eisenbahnwesen*, 1925.
[2] Cmd. 787.
[3] *The Economist*, June 4, 1921.

were anything but compact geographically ; some of them almost assumed the shape of a star fish."[1]

In effect, therefore, railway grouping in Great Britain seems to have followed American theory in preserving the main channels of competition. It is also in harmony with British experience which shows that consolidations in the past usually resulted in a "redistribution of competitive points rather than putting an end to competition."[2] Competition under the grouping is preserved in Great Britain, but it tends to be competition among equals.

* * * * *

It would be difficult to imagine the elimination of railway competition in Great Britain except by complete unification. This has already been suggested by thoughtful students of British railway problems. Sir George Paish, after the passage of the Railways Act, said : "It is not unlikely that experience will show the value of more comprehensive measures of railway consolidation."[3] In December, 1920, the Railway Companies' Association asserted that only by complete unification could competition in Great Britain be eliminated.[4]

* * * * *

At this point an interesting question arises : If grouping of the railways were so arranged as effectively to eliminate competition, what would be the position of the British trader ?

[1] A great many examples to show the extent of existing competition might be given. Thus, the Great Western and the Southern meet in Devon. The London, Midland and Scottish Railway reaches Swansea, Carmarthen and many colliery districts in South Wales where the Great Western predominates. In North Wales the old North-Western (L.M.S.) competes with the Great Western ; while the old Midland (L.M.S.) touches Great Western territory from Birmingham to Bath and Bristol. The old Lancashire and Yorkshire (L.M.S.) passes through North-Eastern territory on its way to Goole ; the Midland (L.M.S.) offers competition to the Great Eastern (London and North-Eastern) as far as Southend, and has lines to Cambridge and Peterborough. The Great Central (L. and N.E.) parallels the L.M.S. between London and Nottingham.

[2] W. R. Scott, paper before *Royal Philosophical Society of Glasgow*, 1910, p. 5.

[3] *Modern Transport*, December 17, 1921.

[4] Letter to the Minister of Transport, December 8, 1920.

To answer this question it is necessary to examine briefly the position of British domestic commerce with respect to water competition, motor transport, and the theory of rate regulation under the Railways Act, 1921.

* * * * *

1. With respect to water competition, the Rates Advisory Committee pointed out that thirty-four per cent. of the British population lives within fifteen miles of the larger ports; and that sixty per cent. lives in zones where water competition is possible.[1] This situation gives point to an observation which was made by a Parliamentary Committee in 1882: "Three-fifths of the traffic of the United Kingdom has its maximum fixed not by Act of Parliament but by the laws of nature and by the fact that Great Britain is an island."[2]

* * * * *

2. Highway transport has developed rapidly in Great Britain since the war. In 1921, the year when the Railways Act was passed, the number of motor vehicles increased enormously. The following table shows the growth in the number of motor vehicles in use (not including motor cycles) from 1913 to 1926[3]:—

Year	Motor Vehicles
1913 - - -	144,000
1914 - - -	183,000
1915 - - -	183,000
1916 - - -	192,000
1917 - - -	157,000
1918 - - -	120,000
1919 - - -	156,000
1920 - - -	263,000
1921 - - -	461,000
1922 - - -	564,000
1923 - - -	664,000
1924 - - -	793,000
1925 - - -	927,000
1926 - - -	1,065,000

[1] Letter to the Minister of Transport, December 22, 1920.
[2] *Railway Rates, Principles and Problems*, Philip Burtt, p. 52.
[3] *The Motor Industry of Great Britain*, published by the Society of Motor Manufacturers and Traders, Ltd., p. 34.

Vast sums of money have been spent on road construction and maintenance. These sums are an index to the growing popularity of motor transport. In the following table, showing public expenditure on roads, the figures are adjusted by the application of gold prices in which the year 1924–25 = 100 :[1]

	£
1912–13 - - -	29,800,000
1913–14 - - -	31,000,000
1914–15 - - -	25,100,000
1915–16 - - -	18,000,000
1916–17 - - -	13,600,000
1917–18 - - -	12,700,000
1918–19 - - -	13,300,000
1919–20 - - -	19,100,000
1920–21 - - -	31,018,000
1921–22 - - -	44,581,000
1922–23 - - -	46,263,000
1923–24 - - -	47,497,000
1924–25 - - -	52,286,165

With the evident tendencies of the development of motor transport, operating in a country where the average railway haul is 50–60 miles, the traders of Great Britain are assured the benefits of very active competition with respect to transport.

3. Traders have a further protection against the abuse of monopoly under the new theory of rate-making proposed by the Act of 1921. A Rates Tribunal has been set up with administrative power to fix rates. The following statement of some of the issues which the Tribunal has the power to determine shows that, in theory at least, the Government is substituting "reasonableness" for the old principle of competitive rate-making :[2]

(*a*) The alteration of the classification of merchandise, or the alteration of the classification of any article, or the classification of any aritcle not at the time classified, or any question as to the class in which any article is classified ;

[1] *Ibid*. p. 12.
[2] Railways Act, 1921, 28.

(*b*) The variation or cancellation of through rates ;
(*c*) The institution of new, and the continuance, modification, or cancellation of existing group rates ;
(*d*) The variation of any toll payable by a trader ;
(*e*) The amount to be allowed for any terminal services not performed at a station, or for accommodation and services in connection with a private siding not provided or performed at that siding ;
(*f*) The reasonableness or otherwise of any charge made by a railway company for any services or accommodation for which no authorized charge is applicable ;
(*g*) The reasonableness or otherwise of any conditions as to packing of articles especially liable to damage in transit or liable to cause damage to other merchandise ;
(*h*) The articles and things that may be conveyed as passengers' luggage.

Closely associated with the powers of the Rates Tribunal for establishing reasonable rates is the further statement of the Act of 1921 that, in the future, the classification of merchandise shall have regard to the " value, to the bulk in comparison to the weight, to the risk of damage, to the cost of handling, and to the saving of cost which may result when merchandise is forwarded in large quantities."[1]

* * * * *

It is clear that although the grouping sponsored by the Act of 1921 does not by any means eliminate railway competition, even if it did so British traders would have ample protection from the evils of unrestrained monopoly.

II

The second principle of grouping, namely, that strong railways should absorb the weak lines, was similar to the principle sponsored by the Government of the United States

[1] Railways Act, 1921, 29 (2).

in the Transportation Act of 1920. It was also in keeping with the resolution of the Association of British Chambers of Commerce : " No scheme of grouping will be satisfying which is not on sound financial lines ; and it will not be in the interests of trade as a whole that prosperous companies should be grouped together, and the poorer companies left to take their chance."[1]

The disposition of the Scottish lines was an example of grouping weak and strong railways together. In his memorandum on the Railways Bill, the Minister of Transport said : " The Scottish railway companies desire to be grouped with English companies, their contention being that they will not be financially strong enough to stand alone."

The position of the Scottish lines seemed to be especially weak in 1921. Before the war, wages were lower and hours of work were longer in Scotland than in England. During the war, however, the principle[2] of " National Agreements " was adopted. Under this arrangement, wages throughout Great Britain were standardized. Coupled with this levelling up of wages was the scaling down of hours of work on the railways : the eight hour day came into effect on the railways of Great Britain on February 1, 1919. The effect of these two events was to increase the operating expenses of Scottish railways out of proportion to the increase of costs on English lines.

The final adoption of longitudinal grouping was regarded as a distinct triumph for the Scottish railways. In the White Paper of 1920 the Scottish railways were separated from the English systems, presumably to form one group. Against this scheme the Scotsmen protested vigorously.

In the Bill which was introduced by the Minister of Transport, the Scottish lines were still separated from the English railways, but they were organized into two groups. *The Railway Gazette* regarded the Minister of Transport as

[1] 142 H.C. 435.

[2] During the war rates were increased on a percentage basis, while wages were increased on an absolute basis.

"cynically humorous"[1] in this treatment of the Scottish railways.

The outcry of the Scotsmen against the proposed framework was violent and sustained. Regarding no other issue in the whole debate did emotional fervour rise higher. The temper of feeling among the Scottish members in the House of Commons can be judged from selected fragments of a speech made by their spokesman:[2]

"The Bill is disliked in Scotland. . . . It is unjust because it puts Scotland apart and separates her interests from the remainder of the country. . . . This evening we find ourselves more English than the English. We are claiming that we belong to the United Kingdom, and we find the Government is pushing Scotland into outer darkness. . . . Are we living in a United Kingdom or not? . . . The railways through those Northern highlands were the railroads upon which the grand fleet was built. . . . The railways of Scotland enabled us to win this war by outflanking the U-boats in the North Sea. . . . Either you must give us freedom altogether or give us the advantages of amalgamation."

The Railway Companies' Association was inclined to agree with the Scottish sentiment and said that a "more effective scheme of grouping than that proposed in the White Paper might lead to including the Scottish railways in the principal groups."[3]

The comment of the special correspondent of *The Times* was that "as far as we can gather the whole strength of public opinion in Scotland is against the Minister of Transport."[4]

[1] In his memorandum on the Bill, the Minister of Transport stated his case as follows: "The outstanding object to be attained from a system of grouping is economy and efficiency in operation and administration, and the formation of two unwieldy groups composed of Scotch and English lines would be directly opposed to the achievement of this result."

[2] 142 H.C. 417.

[3] Letter of December 8, 1920, to the Minister of Transport.

[4] 142 H.C. 690.

In the final decision, the Scotsmen won their point. Their lines are now grouped either with the London, Midland and Scottish Railway or with the London and North Eastern Railway.

III

Joint railways, comprising 600 miles of line, were left intact and not included in the grouping arrangements. Three examples of joint lines and their present status of ownership are as follows :[1]

	Ownership			
	L.M.S.	L.N.E.	G.W.	Southern
Cheshire Lines Committee - - -	$\frac{1}{3}$	$\frac{2}{3}$	–	–
Great Western, Midland Joint Committee -	$\frac{1}{2}$	–	$\frac{1}{2}$	–
Somerset Joint Committee - - -	$\frac{1}{2}$	–	–	$\frac{1}{2}$

Regarding these joint lines, the Special Correspondent of *The Times* observed in 1923 that " there is a shrewd suspicion that when the idea of grouping the railways took definite form the jointly owned lines were deliberately left outside the scheme for fear that the difficulties associated with this inclusion might wreck the pet project of Sir Eric Geddes."[2]

IV

The final principle of grouping was that, as far as possible, railways which had formerly been associated were to be linked together. Perhaps in a large measure this principle of grouping was carried out ; but there were many cases in which lines were mated whose past associations had been as bitter as a Kentucky feud.

[1] *Proceedings of the Railway Rates Tribunal*, June 9, 1925.
[2] *The Times*, January 19, 1923.

The most conspicuous case of joining together, for better or worse, two railways whose past associations had been anything but friendly, was the linking of the Hull and Barnsley line with the North Eastern to form the London and North Eastern Railway. Grouping these two railways together was like mixing oil and water! The Hull and Barnsley interests made it very clear that they did not like the North Eastern: "Hatred of the North Eastern is a tradition in Hull,"[1] said a representative of the latter in the House of Commons. In the final decision, Hull lost its point, "dying in the last ditch."[2]

The practical problem of grouping two companies which for years had been at variance was appreciated by the editor of *Modern Transport*: "It is in the merging of staffs which were formerly antagonistic and in the co-ordination of methods of administration and operation which have for years been at variance that directorates of the four groups have met their greatest problem."[3]

* * * * *

The general plan of grouping having been decided on and specified in the Railways Act, the next step was to bring the new amalgamations into being. The method by which the grouping of the British railways was brought to pass is the subject of the next chapter.

[1] 142 H.C. 691.

[2] *The Economist*, July 9, 1921.

[3] *Modern Transport*, September 20, 1924.

CHAPTER IV

THE PROCESS OF AMALGAMATION

"Whatever the merits of the legal question it was expedient."—W. E. SIMNETT.

IN grouping one hundred and twenty railways into four, under the Railways Act of 1921, the British Government acted with dispatch and precision. Having once decided on the policy, it lost no time in carrying it into effect.

The process of amalgamation will be studied in this chapter under the following headings: (I) the time element; (II) the machinery of grouping; (III) the theory of the complete merger; (IV) the feature of compulsion; (V) the financial arrangements.

I

The speed with which the Government proposed to bring about the new grouping scheme was a feature of the Act which at once attracts attention. The full effect of the rates provisions was not to come into force until the "appointed day" which was finally determined to be January 1, 1928; but the amalgamation of the railways was to be a *fait accompli* on January 1, 1923, or at the latest, July 1, 1923. Sir Henry Thornton aptly said, "We were required to produce, almost over night, a thing which elsewhere had taken thirty or forty years to produce."[1]

The sentiments of the commercial world towards the bold attempt of the Government to act with such dispatch are probably summed up in the opinion of *The Railway Gazette*, expressed early in 1921:[2] "It will be impossible for such

[1] Sir Henry Thornton was, in 1921, General Manager of the Great Eastern Railway.—*Modern Transport*, December 18, 1921.

[2] *The Railway Gazette*, January 14, 1921.

enormous and delicate operations to be carried out within the compass of one or two years."[1] The Railway Companies' Association believed that "the groups cannot operate before January 1, 1924."[2]

The "enormous and delicate operations," however, were performed with such dexterity and speed that, as early as November, 1922, *The Economist* was able to announce: "The details of the principal amalgamation proposals . . . are completed."[3] Regarding this achievement, *The Times*, on December 29, 1922, observed that "the prophets are confounded."

Sir William Acworth says that "after January 1, 1923, there was practically nothing left for the Amalgamation Tribunal to decide."[4] *Modern Transport*, in its first issue in 1923, referred to this date as an important milestone in British railway history: "At the present moment a revolution is taking place in the railway world. Never in the history of railways have such changes occurred in their constitution and organization as those which must now inevitably be made."[5] *The Economist* spoke of January 1, 1923, as "marking the consummation of the greatest revolution in British railway history."[6]

The details of the absorption programme were not completed until later in 1923. In October, the Amalgamation Tribunal disbanded. Its work was accomplished. The first chapter in the huge Government policy of grouping was completed.

* * * * *

The dispatch with which the grouping of one hundred and twenty railways was accomplished is a tribute to the flexibility of the British legal and corporate machinery.

[1] At the beginning of 1922 there was a move made by the railways to extend the time for amalgamation several years, but it came to nothing.

[2] Letter to the Minister of Transport, December 8, 1920.

[3] *The Economist*, November 18, 1922.

[4] *Elements of Railway Economics*, p. 178.

[5] *Modern Transport*, January 6, 1923.

[6] *The Economist*, January 6, 1923.

Contrasted with the United States there were two conditions in the British situation which facilitated the process of amalgamation. First, an Act of Parliament is never unconstitutional, since Great Britain has no written constitution. There was, therefore, no occasion for delay in waiting for a test case to determine the validity of the Railways Act. Second, the railways of Great Britain are incorporated under Acts of Parliament. In the United States, on the other hand, a single railway may be incorporated in as many States as it traverses. Any important change of a corporate nature in Great Britain, therefore, involves much simpler legal action than in America. Unimpeded by these restraints the British Government had a comparatively free hand in bringing about the amalgamation of the railways.

II

The machinery by which grouping was brought about was the Amalgamation Tribunal. It was constituted as a court of record and was composed of three men vested with power which, for scope, has few parallels in modern economic history.

In analyzing the work of the Amalgamation Tribunal, we shall observe its personnel, its general point of view, its functions, the force of its decisions, and the steps involved in bringing about an amalgamation scheme.

* * * * *

Contrary to usual procedure, the names of the members of the Tribunal were included in the Railways Act itself. It was a tribute to the confidence which the public had in the three men selected: Sir Henry Babington Smith, Sir William Plender, and Mr. G. J. Talbot—a banker, an accountant, and a barrister. In naming these men in the Act, the Government virtually said to the public: "Whatever you may think of this complicated piece of legislation, *these men* can be trusted to deal fairly with all interests concerned."

* * * * *

The Amalgamation Tribunal approached its task with a

broad point of view. It was compelled to give opinions on cases involving complex elements of law, economics, and finance. It was asked to balance particular and local demands with the larger transport interests of the nation as a whole, and to secure for all substantial justice.

In dealing with problems of such a character, no rigid formula could be applied ; therefore the Tribunal set up no code of rules. It regarded its work more as an art than as a science. In reaching a decision the Tribunal seems to have defended its judgment on the theory that "whatever the merits of the legal question, it was expedient."[1]

In addition to flexibility of mind the Amalgamation Tribunal seems to have regarded simplicity of procedure as a condition necessary to the success of its work. Regarding the absence of red tape the Secretary of the Tribunal, Mr. Simnett, remarks : "The Amalgamation Tribunal sought always to avoid unnecessary complication, to insure practical efficiency in its proceedings, to carry on its work with economy—as an instance of which it may be mentioned that its whole staff consisted of two officers from first to last—and to expedite the completion of its task."[2]

* * * * *

The Tribunal had three general functions with respect to amalgamation :

1. To receive and review all amalgamation or absorption schemes submitted to it. In the review of such schemes, the Act specified that the Tribunal "shall take into consideration all objections to an amalgamation or absorption scheme . . . which may be lodged by any body or persons."[3] In order to give full publicity, copies of every proposed scheme were to be printed for general distribution and also published in the London and Edinburgh Gazettes. No scheme could be approved until twenty-one days after such publication.[4]

2. To approve or disapprove any scheme of amalgamation.

[1] *Railway Amalgamation in Great Britain*, W. E. Simnett, p. 52.
[2] *Ibid*, p. 76.
[3] Railways Act, 1921, 9 (6).
[4] Railways Act, 1921, 7 (5).

If a scheme was approved, the decision was to have effect as if enacted by law.[1]

3. To prepare schemes of amalgamation or absorption if satisfactory proposals were not submitted by the railways.

In addition to its enormous task of bringing about amalgamation, involving one hundred and twenty railways, the Amalgamation Tribunal had another important function: allotting to each of the four groups established by the Act its share of the £60,000,000 which the Government had agreed to pay to the railways in settlement for all claims arising out of Government control, 1914–1921.

* * * * *

The decisions of the Amalgamation Tribunal were final as to the facts of the case. On points of law appeal could be made to the Court of Appeal or to the Court of Session; further appeal could be made from the Courts to the House of Lords.[2] Subject to these conditions, the orders of the Tribunal had the force of law.

A few appeals were taken to the Courts but in only one case was the decision of the Amalgamation Tribunal reversed. No appeals were taken to the House of Lords.

Typical appeals to the Courts involved the North Eastern and Southern group: (*a*) In the North Eastern amalgamation the point arose as to the status of new entrants to superannuation funds. The Railway Clerks' Association took the case to the Court of Appeal which sustained the Tribunal. (*b*) The Southern Railway was compelled to absorb an insolvent line, the Lee-on-Solent. The Southern claimed that it not only took over a railway of no value, but also one weighted down with £14,000 liabilities. It contended that it should not be compelled to foot the bills of the derelict property. The Tribunal decided that the liabilities were

[1] Railways Act, 1921, 7 (3).

[2] The British Government profited by American experience in making the Amalgamation Tribunal the final arbiter of the facts of a case. In its early years the Interstate Commerce Commission was ineffective because new facts could be introduced on appeals to the Courts.

transferred, and the Southern lost its case. On appeal, the Court upheld the decision of the Tribunal.

* * * * *

The steps involved in bringing about an amalgamation scheme were specified with considerable detail in the Railways Act. First of all, the Act divided the railways into two groups : constituent and absorbed ; it then defined how the railways of each group should be treated in effecting an approved amalgamation scheme.

The Act divided the one hundred and twenty railways into twenty-seven constituent and ninety-three subsidiary or absorbed companies.[1] The selection was rather arbitrary. For example, in the Bill as originally introduced, the Great Western Railway was the only constituent company of the Western Group ; in the Act there were seven. The change was undoubtedly made for practical bargaining purposes.

Constituent companies, composed of the largest railways, had the important task of organizing the four amalgamated companies ; and in this capacity they had the opportunity to appoint the first boards of directors.

* * * * *

The procedure of amalgamation involved several steps : First,[2] the constituent companies in some cases consolidated before negotiating regarding amalgamation ; second, some constituent companies absorbed subsidiary companies ; third,[3] some subsidiary companies were absorbed by the

[1] " Whether absorbed or constituent may make a difference from an internal point of view, but it makes no difference affecting the public."—*The Economist*, July 9, 1921.

[2] An example of this was the merger of the London and North-Western with the Lancashire and Yorkshire forming a new company on January 1, 1922. This new company, with a capital of £189,000,000, later combined with the Midland ; and the latter combination was merged into the London, Midland and Scottish Railway.

[3] An example of constituent companies absorbing subsidiary companies was the case of the London and South-Western, now part of the Southern Railway, when it absorbed the following companies : Bridgwater, Isle of Wight, Isle of Wight Central, North Cornwall, Plymouth and Dartmoor, Plymouth, Devonport and South-West Junction and the Sidmouth Railways.

newly formed amalgamated companies directly;[1] finally, constituent companies organized the amalgamated companies. A time order of events is not suggested here, but merely separate possible steps in the process of amalgamation.

The steps involved in the organization of the amalgamated companies were as follows:

(*a*) The constituent companies were authorized to submit their plans for the organization of the amalgamated companies before January 1, 1923, to the Minister of Transport.

(*b*) The latter then referred the scheme to the Amalgamation Tribunal for approval or disapproval.

(*c*) If the tribunal approved, the scheme had all the sanction that was necessary.[2] Failure to submit such plans automatically imposed on the Amalgamation Tribunal the duty of arranging the details of Amalgamation.

*   *   *   *   *

The Railways Act laid down certain prerequisites which should govern any amalgamation scheme.[3] The minimum requirements were:

(*a*) Incorporating under an appropriate name.

(*b*) Defining powers, such as holding land, issuing capital, and the assumption of all the "rights, powers, duties and liabilities" of the constituent companies.

(*c*) Winding up the constituent companies, including the allocation of the securities of the old for securities of the new companies.[4]

(*d*) Making arrangements regarding the constitution of the board of directors of each amalgamated company.[5]

[1] An example of absorption by the amalgamated company was the case of the London, Midland and Scottish Railway taking over directly the Arbroath and Forfar Brechin and Edzell District and other Companies.

[2] Railways Act, 1921, 7 (3).

[3] Railways Act, 1921, 3.

[4] For specific purposes the Amalgamation Tribunal was given the power to extend for ten years the corporate life of a constituent company; but this power was not exercised.

[5] The London, Midland and Scottish Railway and the London and North-Eastern were limited to 28; the Great Western to 25; and the Southern to 21.—(Schedule 2 of Railways Act, 1921.)

(*e*) Making provision, with the consent of the proprietors, for the compensation of displaced directors out of the assets of the constituent company.

(*f*) Assuring protection of superannuation, pensions, provident, and widows' and orphans' funds which existed in any constituent company.

(*g*) Making provision for safeguarding the permanent employees of each company.

(*h*) Making provision that each scheme of amalgamation should have the sanction of the proprietors and debenture stockholders.[1]

Regarding subsidiary companies, as distinguished from constituent companies, the procedure was as follows :

(*a*) Constituent companies had the right to submit schemes for the absorption of subsidiary companies of their group by the amalgamated company on terms agreed to by the subsidiary companies.[2]

(*b*) Schemes so prepared by the constituent companies were to be sent to the Minister of Transport not later than January 1, 1923.

(*c*) Such schemes were then submitted by him to the Amalgamation Tribunal, which had the right to approve or disapprove.

(*d*) If a scheme were not forthcoming by January 1, 1923, the Amalgamation Tribunal was authorized to prepare and settle one in accordance with the Act.

(*e*) The details with respect to the minimum requirements of an absorption scheme were essentially the same as those specified for the constituent companies in forming the amalgamated companies.

III

The consolidation theory of Great Britain was based on the assumption that the integral part of each amalgamation should completely disappear as a corporation and be absorbed in the

[1] Railways Act, 1921, 7 (2).

[2] Railways Act, 1921, 4.

newly formed company.[1] The Government did not permit mergers through holding companies.

The American policy, as defined by the Transportation Act of 1920, is opposed to actual mergers until the final plan of railway consolidations for the country as a whole has been approved by the Interstate Commerce Commission.[2] In the interval, the Commission has the right to authorize the control of one company over another by stock ownership, lease, or by any other method which does not destroy the identity of the absorbed company.[3]

* * * * *

It is a wonder that such a drastic reorganization as that proposed by the Railways Act stirred up as little emotional disturbance as it did. Perhaps more than most commercial enterprises railways seem to develop for themselves a personality around which pride and loyalty centre. Even in the newer countries of the world where the force of tradition is not so strong as in England giving up the corporate charter and title would certainly be regarded as equivalent to surrendering an honourable family name. *Modern Transport*[4] expressed the opinion that " those who have spent the greater part of their lives in the service of a particular company naturally become very closely interested in it. Their feeling for the company is more than a mere sentimental attachment ; it may take the form of a real and useful knowledge of the history of the undertaking, or of its geography, or of its traffic or working conditions."

In the last records of the old companies the shadows of

[1] The Great Western retained its name and identity.

[2] Section 5, paragraph 2.

[3] " The American railway systems are composed of many subsidiary companies which, for legal or financial reasons, retain their corporate identity. Mr. A. J. County, Vice-President of the Pennsylvania Railroad, presents the following interesting data regarding the Pennsylvania System : " It represents the consolidation of six hundred corporations into seventy ; of the seventy, ten are operating companies ; at least twenty companies have not been absorbed because of legal or financial difficulties."—*American Economic Review* (*Supplement*), March, 1924.

[4] November 27, 1920

regret flit across the pages of the corporate proceedings otherwise devoid of sentiment. Most of these records exhibit a classic " we-about-to-die-salute-you " spirit.

In its final report, the London and North Western, which was to be merged into the new London, Midland and Scottish Railway, made a graceful valedictory that is fairly typical of the other reports : " While it is of course a matter of regret that the old name which has been in existence since 1846, when the company was formed, must go—the change has been rendered necessary. We have, over a long period of years, consistently tried to preserve the great traditions which our company inherited from George Stephenson . . ." In the same vein, the Chairman of the Midland Railway at the last annual meeting of his company, in February, 1923, said : " We hate losing our name and our individuality." A veteran of British railways, Lord Claud Hamilton, presided on his eightieth birthday over the last meeting of the Great Eastern Railway. He concluded his railway career[1] and that of the Great Eastern with the words : " To-day, alas, the Great Eastern Railway is a thing of the past. *Sic transit gloria mundi* " (cheers).

* * * * *

Only one railway, the Great Western, retained its name and identity.[2] The Chairman, the Rt. Hon. Viscount Churchill, told his stockholders at the annual meeting in February, 1922 : " I am sure it will bring joy to the hearts of many who love the Great Western that our old name and identity are to be retained." Mr. Arnold Bennett gloried in this one survival

[1] *The Times*, February 21, 1923.

[2] The Great Western was allowed to be the Amalgamated Company because it was the dominant railway of its group. Out of a total capital expenditure of £163,000,000 for the Group, the Great Western represented £116,000,000. *The Times* said of the Western Group : " The simple character of the amalgamation is so evident."—*The Times*, February 10, 1922. Sir William Acworth wrote in 1923 : " The Great Western alone, enlarged but unchanged like the great engineering works of its author, still retains the name in which it was incorporated by its original Act of 1835."—*Journal of Economics*, March, 1923.

with an artist's enthusiasm, part of which, if taken literally, would be a little embarrassing to the Great Western itself :[1]

> "In the amalgamation of great railway systems some years ago the Great Western alone kept its identity. It is still the Great Western ; no muddling outsiders have come to introduce damnable improvements, economies, and modernizations. It is conspicuously more the Great Western than ever."

IV

The amalgamation of British railways was compulsory. The White Paper of 1920 expressed the Government point of view as follows :

"It is hoped that the amalgamation of companies in the respective groups will be carried out voluntarily ; but . . . powers will be sought in a future Bill to compel amalgamations (on terms, failing agreement, to be settled by some tribunal) in any cases where they are not voluntarily completed within a reasonable time to be specified."[2]

The Railways Act which followed the White Paper allowed no room for doubt regarding the compulsory feature. The Act stated that "railways shall be formed into groups,"[3] and that if constituent companies failed to submit agreed amalgamation and absorption schemes, a plan "shall be prepared and settled in accordance with this Act by the amalgamation tribunal."[4]

* * * * *

Naturally there was strong opposition to a policy which seemed so drastic. Echoes of this opposition were heard in Parliament. The following is typical of the oratory of protest :

> "Why do you want a Bill to enable the railways to group themselves ? If they want it let them do it voluntarily. The voluntary principle is the mainspring of our industry

[1] *The Railway Gazette*, October 15, 1926.
[2] Cmd. 787.
[3] Railways Act, 1921, 1 (1).
[4] Railways Act, 1921, 2 (3) and 4 (3).

and our prosperity. I do not believe for a moment in this compulsory grouping."[1]

The Railway Companies' Association viewed "compulsion as a very serious matter."[2] Mr. Cosmo O. Bonsor, Chairman of the South Eastern and Chatham Railway, spoke in a minor key to his stockholders about this phase of grouping :

"I might say that the Railways Act is a most extraordinary production. For the first time in Parliamentary history, commercial businesses are ordered to amalgamate whether they like it or whether they do not. They are given one year from now to come to voluntary amalgamation. Failing that, there is a tribunal appointed to compel them to amalgamate, to state the terms on which they are to amalgamate, and as far as I know there is absolutely no appeal from their decision." (Cries of "shame.")[3]

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Towards the general principle of grouping the railways were in substantial agreement that it was sound. Voluntarily they had gone far towards realizing the purposes of the Railways Act, 1921.

Amalgamation had been a consistent policy among British railways almost from their very beginning.[4] In the course of a century, over one thousand railway corporations had been merged into approximately two hundred.[5] Even of these two hundred only a comparatively few can be regarded as important operating railways. At a meeting of the North Eastern Railway in 1921 the chairman stated that, apart from the London Underground System, 95 per cent. of the total railway receipts of Great Britain were earned by nineteen companies.[6] Another estimate was that the bulk of the

[1] Mr. G. Lambert, 142 H.C. 624.

[2] *The Railway Gazette*, December 17, 1920.

[3] *The Times*, February 24, 1922.

[4] Sir Felix Pole put the case in an interesting way : "Among the cherished possessions at Paddington are three cases which contain the common seals of 130 undertakings absorbed by the Great Western Railway."—*Financial Times*, January 1, 1923.

[5] 142 H.C. 350.

[6] *The Railway Gazette*, June 3, 1921.

railway transport business of the country was in the hands of eleven companies.[1]

There is quite general agreement among British railway economists with the following statement of the Minister of Transport in the House of Commons regarding the attitude of Parliament towards grouping :[2]

> " If you go back the past fifty or sixty years and look into the proceedings, findings, recommendations, and proposals of the innumerable committees and Royal Commissions which have sat upon this matter you will find that systematically they have advised increased co-operation, increased amalgamation, larger units to operate for economy's sake, and to a decreasing extent have they placed importance on what they now describe as the illusory advantages of competition."[3]

The Economist remarked editorially, three days after the Bill was introduced in Parliament, that " competition even before the war had to a great extent ceased and that the present scheme of amalgamation is only completing a development that had already gone far."[4]

The Railways Companies' Association took the same position as *The Economist* : " The Association agrees with the Minister that grouping on the basis of co-operation is right in principle, and it accords with the past practice of railway companies in this country and would continue notwithstanding any action of the Government short of absolute prohibition."[5]

Modern Transport referred to grouping as a " policy which in pre-war days would have been carried out on economic

[1] *English Railways, Their Development, and Their Relations to the State*, Edward C. Stevens, p. 315.

[2] 142 H.C. 348.

[3] Although Parliament had favoured many consolidations it had also disapproved some very important ones, notably the proposals of the Midland to merge with the London and North Western and the Glasgow and South Western ; also the proposal to merge the Great Eastern, the Great Northern and the Great Central.

[4] *The Economist*, May 14, 1921.

[5] Letter to the Minister of Transport, December 8, 1920.

lines had it been possible for the railway companies to overcome the apprehensions of Parliament."[1]

Sir George Paish, speaking a few days after the Bill had become an Act, referred to the fact that "there is no serious opposition to the Government's proposal to consolidate the railroads."[2] In 1922, Sir Ralph Wedgwood, General Manager of the North Eastern Railway, spoke of amalgamation as "a plan which compels the railways to do what they desired to do for years."[3]

At the annual meeting of the Great Eastern Railway in 1922, the Chairman spoke with the same point of view:[4] "While many of us are disposed to think that the decrees of the present Government are not always words of wisdom (hear, hear), we must admit that the country as a whole has approved of this proposal. I am disposed to approve of the grouping as a probable means of recovering, to some extent, the pre-war financial position of the railway companies."

* * * * *

Even where no actual mergers[5] had taken place, there were many cases where close working agreements produced the same effects. As typical of the close affiliation of the "Three Greats," it was "not uncommon to see a Great Northern horse wearing a Great Central harness, attached to a Great Eastern cart."[6]

The actual extent of the consolidation existing at the time of the passage of the Railways Act, 1921, is gained by observing the amalgamations by which the larger railways of Great Britain had been formed:[7]

[1] *Modern Transport*, September 20, 1924.
[2] *Modern Transport*, August 27, 1921.
[3] *The Economist*, September 16, 1922.
[4] Rt. Hon. Lord Claud Hamilton, *The Times*, January 25, 1922.
[5] Many examples might be cited showing the wide extent in Britain of intercorporate relations in the form of joint lines, working unions, running powers, pooling agreements, joint claims committees, and agreements not to promote competing lines.
[6] *The Times*, *Railway Supplement*, August 15, 1921.
[7] Sir Henry Maybury, Director-General, Roads Department in Ministry of Transport. *Modern Transport*, November 18, 1922.

Progress of Amalgamation	Length of Line in Miles	Companies Amalgamated or Lines Leased
Great Central - - -	753	15
Great Eastern - - -	1,133	26
Great Northern - - -	856	22
Great Western - - -	2,993	130
Lancashire & Yorkshire -	589	14
London & North Western -	1,966	59
London & South Western -	964	40
London, Brighton & South Coast - - - -	454	19
Midland - - - -	1,531	35
North Eastern - - -	1,728	41
South Eastern & Chatham -	629	29
Caledonian - - - -	1,074	41
North British - - -	1,363	45

* * * * *

Since the railways had gone so far on the path of consolidation, was it necessary for Parliament to use the whip of compulsion ? The weight of opinion seems quite generally to give an affirmative answer to this question. However much the railways might have favoured the general policy the fact is that they had not framed an amalgamation scheme in terms of the transport problems of Great Britain as a whole. Referring to former amalgamations Sir George S. Gibb said that " general interest has in the main been ignored."[1] Even admitting that it is possible that the British railways might have grouped themselves voluntarily in some comprehensive scheme, it is hardly probable that this would have happened until some distant date.

Thus, in one study of the financial phases of the consolidations, the conclusion was reached that " there seems to be little doubt that, in the course of time, railway companies themselves would have sought Parliamentary sanction for further amalgamation," but the " passing of the Railways Act, 1921, has expedited this process."[2]

[1] Paper, *Railway Nationalisation, Royal Economic Society*, November, 1908.

[2] *Economica*, June, 1924. William Ashton and Alec Berry.

Lord Grey of Fallodon, in 1927, said[1] that in 1921 the "directors of the different companies simply did not want to be amalgamated, but they had found since that they had worked together and they had become a body of friends, and now would not willingly be separated."[2]

The Chairman of the London and North Western Railway maintained that "without compulsion no comprehensive system of grouping of railways could be carried into effect."[3] *The Times* agreed that "it would have taken a generation to form these groups by voluntary methods."[4] Sir William Acworth concluded that "voluntary effort would not have completed final amalgamation till the Greek Kalends."[5]

* * * * *

Though compulsory powers were contained in the Railways Act of 1921 as a whip it was scarcely necessary to crack the whip. "Surely no higher testimony to the traditional English virtues of moderation and readiness to compromise was ever given than by the fact that the compulsory powers were hardly put into force at all."[6] *The Times*[7] observed, December, 1922, that "though a large number of railways are involved, and difficulties of a most complex nature have had to be faced, a remarkable measure of agreement has been reached, and there is very little left for the Amalgamation Tribunal to do."[8]

* * * * *

In the United States, under the Transportation Act of 1920, railway consolidation is permissible, not compulsory. During these eight years either the railways have been unable to agree on detailed plans of grouping among them-

[1] *The Times*, November 19, 1927.

[2] The Minister of Transport said: "Compulsion as a last resort seems to be essential."—142 H.C. 716.

[3] *The Times*, February 25, 1922.

[4] *The Times*, Special Correspondent, August 11, 1922.

[5] *Journal of Economics*, March, 1923.

[6] Sir William Acworth, *Elements of Railway Economics*, p. 178.

[7] *The Times*, December 28, 1922.

[8] Twenty-six out of twenty-seven of the constituent companies agreed to schemes of amalgamation without the intervention of the Tribunal.

selves, or their schemes have not secured the approval of the Interstate Commerce Commission. The result is that no important consolidation programme has been developed.[1] With this situation in mind President Coolidge made the following recommendation to Congress in his Annual Message of December 6, 1927 :

" In order to increase the efficiency of transportation and to reduce its cost to the shipper, railroad consolidation must be secured. Legislation is needed to simplify the procedure and to secure such agreements, and arrangements for consolidation, always under the control of and with the approval of the Interstate Commerce Commission. Pending this, no adequate reorganization can be made of the freight-rate structure. In the meantime both agriculture and industry will be compelled to await the needed relief."

V

The financial problems of amalgamation bristled with difficulties. The White Paper of 1920 was silent in this phase of grouping. That document laconically said that " it is proposed that the railways of Great Britain should be formed into a limited number of groups " ;[2] but it did not suggest on what financial basis the groups should be formed.

It was naturally a matter of much importance to the 1,000,000 security holders[3] that the exchange of shares and debentures should be as favourable as possible. The popular mind regarded it of equal importance that the capitalization of the railways should be kept within bounds in order to prevent " pressure by the shareholders to increase rates ; "[4]

[1] " A survey of the results of eight years' experience under the consolidation clauses of the Transportation Act of 1920 reveals little progress towards consolidation on a large scale."—Stuart Daggett, *Principles of Inland Transportation* (1928), p. 462.

[2] First paragraph, Cmd. 787.

[3] 142 H.C. 677. There were approximately 200,000 debenture holders, in addition to 400,000 ordinary shareholders and 400,000 preference shareholders.

[4] Opinion of the Federation of British Industries.—*The Times*, January 9, 1921.

at the same time Labour believed that "any tendency to over capitalization would inevitably react on wages."[1] It was the task of the Amalgamation Tribunal to balance these various points of view and, under restrictions imposed by the Railways Act, to render final decisions.

In analyzing the financial problems of amalgamation we shall examine the basic theory of valuation which was laid down by the Railways Act, 1921; the "other circumstances" which had to be taken into consideration; the position of "trustee stocks" under the Act; and finally, the effect of consolidation on the total capitalization of British railways.

* * * * *

The following questions are bound to be raised when any consolidation scheme is proposed: On what basis shall the securities of the old companies be exchanged for shares and debentures of the newly-formed amalgamation? What is a property worth? Shall original investment, reproduction cost, or earning power be accepted as the measuring rod of value?

* * * * *

If original investment had been taken as the basis of valuation of the British railways, many troublesome questions would have been raised.[2] For historical reasons the capital costs of British railways per mile of line are very high. In 1921, a comparative estimate of costs showed the following results:

Country	Expenditure per Mile of Line
	£
United States - -	14,000
Germany - - -	34,000
France - - -	31,000
Great Britain - -	56,000

[1] The Railway Clerks' Association took this view in the disputed settlement between the Great Western and the Barry Railway.—*Railway Amalgamation in Great Britain*, W. E. Simnett, p. 53.

[2] The statistics regarding capital expenditure were compiled by Sir J. G. Beharrell, D.S.O., formerly Director-General of Finance and Statistics, Ministry of Transport.

As compared with the United States the capital costs of British railways per mile of line are high for several reasons:

1. The railways of Great Britain were constructed without the assistance of grants from the State. Robert Peel once exclaimed in Parliament:[1] "Without the advance of a single farthing of public money, what advantages have been secured to the whole public by this investment of private capital!"[2] This lack of State aid was in sharp contrast with the policy of America where the land grants made by the Federal Government alone amounted to 150,000,000 acres of the public domain.[3]

2. Engineers have claimed that the quality of the original construction was much more substantial in Great Britain than in America.[4] If this be so, due allowance should be made in making comparisons of capital costs which react on operating expenses. *The Times*, after making the statement that "it is universally recognized that British railways bore the strain of war far better than the systems in any other belligerent country, not excluding America——" ventured the explanation in terms of the superior construction standards existing on British railways: "Other nations used to smile at the thoroughness of British railway engineers and to declare that

[1] Robert Peel in 1884.—*The Railway Gazette*, June 22, 1925.

[2] "The main railway system of the United Kingdom has been provided entirely by private enterprise and it has been organized on the basis of company ownership and management."—142 H.C. 351.

[3] *Principles of Railroad Transportation*, Eliot Jones, p. 61. This does not include grants made by the States.

[4] Mr. R. Bell, Assistant General Manager of the London and North Eastern Railway, made a very trenchant statement before the Manchester Statistical Society, December 14, 1927: "Turning to the expenditure which is debited to revenue, we find that the railways spent 181 millions in 1925. This was 178 per cent. over the working expenses of twenty-five years ago. Twenty-four millions went in maintaining the permanent way and structures. Two-fifths of that sum sufficed in 1901, but the *sound construction of our railways is proved by the fact that the expenditure under this head in America has gone up by 278 per cent. over the same period*."—*Manchester Guardian Commercial*, December 15, 1927. (Author's italics.)

they built their permanent way and rolling stock as though for all eternity. . . ."[1]

3. The expense of getting railway bills through Parliament added considerably to the costs of British railways;[2] but on the other hand the latter were not embarrassed with the dishonest methods of high finance indulged in by construction companies associated with the building of American lines.

4. The chief element in the capital cost of British railways was the price of land. The property purchased by the new lines was in a territory already thickly populated, highly developed, and often hostile to railways. There can be no doubt that in most cases the railways paid exorbitant prices for their rights of way, and that as a result of this "blackmail of the forties," the British lines were saddled with an enormous overhead charge.

When the British Government, therefore, decided to ignore original capital investment as the basis of fixing railway valuation it excluded from the debate the discussion of a history long past which would likely have led to fruitless wrangling. At the very mention of this thorny subject, one member of Parliament rose and proceeded to quote the Prime Minister, Mr. Lloyd George, who, in the early days of his career when he was sowing his wild oats, said that "they (the railways) had to pay over for land fifty times more than its real value."[3]

* * * * *

If the Government had accepted reproduction cost as the basis of railway valuation, a complete physical inventory of the railway plant would have been required. This method would have taken both time and money. In 1913, the Government of the United States passed a law providing for physical valuation. By the end of 1927, approximately £25,000,000 had been spent on this immense task;[4] and it was still far

[1] *The Times*, *Railway Supplement*, August 15, 1921.

[2] On the London and Brighton, for example, the law charges amounted to £3,400 per mile of line.—*Railway Magazine*, Vol. II, 1909, p. 479.

[3] 142 H.C. 405.

[4] *Railway Age*, March 24, 1928.

from complete.[1] Further, the reproduction theory of valuation would have been much more unpopular with the public than either the original investment theory or the capitalization of earnings theory. It was estimated, for example, that the market value of the Midland Railway was £130,000,000 in 1913, and £82,400,000 in 1920; but that its replacement value was £300,000,000.[2] A financial authority stated that the " railways could not be constructed for less than two or three times their present capitalization."[3]

* * * * *

Fortunately for the Amalgamation Tribunal the question of policy regarding the basis of valuation was determined for it by the Railways Act: fundamentally, the value of the British railways was to be determined by their earnings.

This principle of accepting earnings as the basis of value was not a new one in British railway history. In 1844, Mr. Gladstone introduced the Railway Regulation Act which defined the terms under which the Government might, at the end of twenty-one years, purchase the British railways.

The section in the Act of 1844 dealing with the option of purchase of future railways states that the Government may purchase railways constructed after 1844 on the payment of a " sum equal to twenty-five years purchase of the annual divisible profits estimated, on the average of the three then next preceding years: Provided that, if the average rate of profits for the said three years shall be less than the rate of ten pounds in the hundred, it shall be lawful for the company, if they shall be of opinion that the said rate of twenty-five years purchase of the said average profits is an inadequate rate of purchase of such railway, reference being had to the prospects thereof, to require that it shall be left to arbitration in case of

[1] For rate-making purposes, reproduction cost is only partially accepted as the basis of valuation in the United States. A summary of 363 cases, decided in 1920–22, shows that in 146 of them reproduction cost was not the basis of valuation. South-Western Bell Telephone Co., vs. Public Service Commission of Missouri, 43 Sup. Ct. Rep. 544, 1923.

[2] W. J. Stevens, *The Railway Gazette*, November 5, 1920.

[3] *Ibid.*

difference to determine that (if any) additional amount of purchase money shall be paid to the said company."[1]

If the British Government had proposed that the State should purchase the railways in 1921 undoubtedly this Gladstonian legislation would have been invoked. While there was still some doubt as to the course the Government would pursue, the principal banks of the City, on March 17, 1919, addressed a note to Rt. Hon. Austen Chamberlain, Chancellor of the Exchequer, in which the following paragraph appears :

> " The terms and limits of this option of State purchase are set forth in the Act of 1844. This Act is the charter of the railway shareholder. Any attempt to tear up the treaty, which this Act constituted between the State and the railway shareholders, would be regarded as a repudiation of national credit."

* * * * *

It will be observed presently that the Railways Act, 1921, accepted the theory of the Act of 1844 in making earnings the main test of value ; but in their details the two Acts of Parliament are very far apart.

The Railways Act of 1921 established the following criteria to be followed in determining railway valuation :[2]

1. Net earnings of each of the constituent or subsidiary companies as a separate company.
2. The value of each company as a component part of the amalgamated company, not including economies or accretions of traffic tending to enhance its value brought about by the amalgamation.
3. Any special circumstance affecting each case.

* * * * *

It is curious that, in establishing the capitalization of net earnings as the main basis of valuation, the clause of the Railways Act dealing with this subject does not specify the year or years which are to be regarded as the standard for

[1] Railway Regulation Act, 1844. 7 & 8 Vic., chapter 85.

[2] Railways Act, 1921 (6).

making the calculations. Only in a minor clause relating to the case of a line of one company being worked by another is there a reference to the year 1913.

In another part of the Act, however,[1] the new rates theory gives the clue to the basis of railway valuations: In the future, rates should produce net earnings, under conditions of efficient and economical management, equivalent to the net revenues in the year 1913 plus (*a*) five per cent. on additional capital expenditure incurred during the period of government control; (*b*) such allowance as may be necessary to remunerate capital invested since January 1, 1913, not provided for by section (*a*), just mentioned, unless such capital expenditure did not enhance the value of the undertaking; (*c*) a reasonable allowance for capital expenditure which had not on January 1, 1913, become fully remunerative; (*d*) an allowance of not more than thirty-three and one-third per cent. of the economies effected in anticipation of amalgamation.[2]

If, in general, the railways were to maintain a level of charges to yield 1913 net receipts, in addition to the items mentioned above, the assumption was clear that the net earnings of that year were to be taken as the prime basis of capitalization. At no time does there seem to have been any doubt in the minds of the members of the Amalgamation Tribunal regarding this highly important point.

* * * * *

The capitalization of earnings as a basis of railway valuation had four advantages: first, it was an amount which could be definitely stated; second, it had the merit of simplicity; third, it prevented speculation; fourth, it made unnecessary any discussion of watered stock.

1. The net receipts of the railways which formed the four groups amounted to £45,218,523 in 1913. The return on

[1] Railways Act, 1921, 58 (1).

[2] These economies in anticipation of amalgamation were those which were introduced between August 19, 1921, and June, 1924 (in some cases December, 1924). These economies will be discussed in the next chapter.

capital additions and economy allowances brought the total to £50,057,847, the standard revenue.[1] Although not the only factor, the 1913 earning power of the railways constituted the determining one in arriving at the relative capital value of the merged properties.

2. The simplicity of the valuation formula adopted by the British Government is brought out by contrasting it with the cumbersome doctrine of valuation laid down by the United States Supreme Court :

> " And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates fixed by statute, and the sum required to meet operating expenses are all matters of consideration and are to be given such weight as may be just and right in each case. We do not say there may not be other matters to be regarded in estimating the value of a property."[2]

3. The policy of basing values mainly on earnings prevented speculation in railway shares on the London Stock Market. There was no temptation to juggle the control of stocks in order to create artificial values. Insiders were in no position to profit because of their favoured position. The railway properties had been allocated by the Railways Act, 1921. This allocation eliminated any possibility for speculation. The values attributed to these properties by the Amalgamation Tribunal, moreover, had no essential relation to the current price of railway shares.

The British situation was in sharp contrast with the conditions prevailing in America. In the United States the chief method of consolidation at the present time is stock ownership. This method makes possible not only excessive speculation in the open market but also personal aggrandizement by railway executives.

[1] This sum was arrived at by the Rates Tribunal after a long inquiry.

[2] Smyth *v.* Ames, 169 U.S. 466, 1898.

As an illustration of the danger to the public which the American method involves, the incident of the South-Western merger, involving the Kansas City Southern R.R., the Missouri, Kansas and Texas R.R., certain New York bankers, and Mr. L. F. Loree will be cited directly from the proceedings of the Interstate Commerce Commission (finance No. 1975, Sub. 2) :

" The testimony shows that following the passage of the Transportation Act in 1920, the officers and directors of the Kansas City Southern commenced a study of traffic relations in the South-west and of the possibilities of consolidations, and a special committee was appointed to consider the matter, with Loree as chairman. The conclusion was reached that the Kansas City Southern should consider the acquisition of control of other roads to be grouped into a system with the Kansas City Southern. About the middle of October, 1924, an attempt was made to acquire stock of the St. Louis—San Francisco Railway Company in the open market, but after acquiring 1,400 shares the price advanced so rapidly that the idea was abandoned and the stock so acquired was sold during the latter part of the same month at a profit of $11,786.50. Also in October, 1924, Otto Kahn, of Kuhn, Loeb & Company, advised Loree that that firm and some of his associates were buying Missouri-Kansas-Texas stock and asked him if he desired to take an interest with him. Loree acquiesced, and on November 6, 1924, there were purchased for him 11,950 shares of common stock at $19.68 per share, costing $235,176. On November 7, 1924, there were purchased for him 2,050 shares of common stock at $21.25 per share, costing $43,562.50, making the total cost, including brokerage commissions and interest, $285,872.14.

" About November 10, 1924, Kahn informed Loree that he had been approached by Swartwout & Appenzellar, a brokerage firm in New York, with an offer of sale of that firm's holdings of Missouri-Kansas-Texas stock, and asked Loree whether the Kansas City Southern desired to buy it. Loree presented the matter to the special committee,

which decided to acquire the stock. On November 11 it purchased 25,000 shares firm and took options on 17,600 shares for delivery on November 25, and 50,000 shares for delivery on December 5. Kuhn, Loeb & Company received a commission of 50 cents per share on this stock. Following this action by the special committee, Loree notified Kahn that he did not want any more Missouri-Kansas-Texas stock purchased for him, and requested that the stock theretofore purchased for him be sold as soon as these Kansas City Southern purchases were completed.

" The record shows that the 17,600 shares under option from Swartwout & Appenzellar were delivered on November 29, 1924. On November 25, 1924, Kuhn, Loeb & Company also sold to Kansas City Southern 50,000 shares, which stock was apparently owned by themselves and not included in the Swartwout & Appenzellar options. On December 5 the Kansas City Southern took delivery of the remaining 50,000 shares of the Swartwout & Appenzellar stock. Meanwhile there had been purchased in the market through two stock exchange firms a total of 19,600 shares, all of which were delivered to Kansas City Southern on November 20, 1924. Consequently on December 5, 1924, the Kansas City Southern held 162,200 shares of Missouri, Kansas and Texas common stock. Of this amount there had been purchased at private sale and by options all but 19,600 shares. The purchases of stock made in the open market, delivery of which was taken on November 20, 1924, showed prices ranging from $23.50 per share to $25 per share.

" In accord with Loree's instructions to Kuhn, Loeb & Company to sell his stock when these purchases were completed, on December 3, 1924, 4,000 shares of Loree's stock were disposed of at $28.06 per share, and the remainder was sold as follows for January delivery at seller's option : December 5, 1924, 2,000 shares at $32.37 per share ; December 6, 1924, 6,000 shares at $32.25 per share, and December 8, 1924, 2,000 shares at $31.37 per

share. *The net profit to Loree on this transaction was* \$144,708." (Author's italics.)

4. Regarding watered stock the policy of England is based on the principle that the railways are free to issue it providing they obtain permission from Parliament to do so and frankly admit it in their reports.[1] Their accounts then show water as nominal additions and not as assets. In a British Railway balance sheet, if £100 stock is watered to £200, the statement of capital receipts shows the result as follows :

Capital Receipts - - - - -	£100
Nominal Additions - - - -	£100

One student of railway finance estimated that before the war water in British Railway capitalization amounted to 16 per cent.[2]

Since the shares or debentures are not redeemable, however, it was unimportant, from the standpoint of the Tribunal, whether a block of stock which was to receive £100 income per annum was described as £2,000 at 5 per cent. or £2,500 at 4 per cent.[3]

When the Railways Act, 1921, made earning power the main standard of value, all questions of nominal capitalization were thereby brushed aside as being unimportant.

* * * * *

Although the capitalization of net earnings was regarded as the underlying principle of railway valuation on which the exchange of securities was based, it was not intended to be regarded too rigidly. The phrase in the act which[4] states that " the Amalgamation Tribunal shall take into

[1] Railroad Capitalization, James C. Bonbright. Columbia Studies in History, Economics and Public Law, Vol. xcv, No. 1, p. 25.

[2] Legislative Regulation of Railway Finance in England, Ching Chun Wang, University of Illinois. Studies, June, 1918.

Mr. A. G. Walkden, General Secretary of the Railway Clerks' Association, accused the railways of having £200,000,000 of watered stock, or 14 per cent. of their capital.—*The Times*, August 15, 1921.

[3] Debentures entitle the holder to a stated income in perpetuity. In case of a default he can have a receiver appointed ; but he has no right to dispose of the assets of the railway.

[4] Railways Act, 6.

consideration all the circumstances of the case," gave to the final decisions of that body an elasticity without which substantial justice could not have been done to the security holders.

In effecting the exchange of securities, the Amalgamation Tribunal attempted to make an equation of values ; it aimed to give *quid pro quo*. Three considerations governed its adjustments : yield, security, and priority.[1]

If yield had been the only basis of exchange, the problem would have been easy to solve, as in the case of the exchange of Southern Railway debentures for South-Eastern debentures. Here the security of both issues was presumed to be equal. As a result £125 4 per cent. Southern Railway debentures were issued to the holders of £100 5 per cent. South-Eastern debentures.

But all cases could not be dealt with as simply as this one. As *The Times* pointed out, "differences in the physical conditions of the lines, in the extent to which they had made provision for the future, and the complications presented by their different capital accounts set the framers of the plan a thorny task.'"[2]

Where the security of one company was weak in comparison with that of the amalgamated company, the exchange produced an equation which reflected the weakness on one side and the strength on the other. Thus in the Cambrian Railway, which became a part of the Great Western, £100 Cambrian ordinary stock was exchanged for 28s. 6d. Great Western ordinary, not ranking for dividend till 1929. In the North-Eastern, the general principle was adopted of issuing preferred ordinary stock in exchange for securities with fixed dividends, and deferred ordinary in exchange for securities with only potential earning power.

A good illustration—an extreme case—of the varied rates of exchange of securities, was the rating given two stocks : the North-Eastern ordinary (Consols.) and the Caledonian deferred ordinary (No. 1 and No. 2). The first was regarded

[1] Sir William Acworth, *Economic Journal*, March, 1923.
[2] *The Times*, October 21, 1922.

as gilt-edged ; the second was worthless. In the first case the rate of exchange was as follows :

	Shares of the Amalgamated Company
£100 North-Eastern ordinary =	£100, 4 per cent. 2nd preference (trustee stock).
	£50, 5 per cent. preferred ordinary.
	£40, deferred ordinary.

In the second case the equation was :

£100 Caledonian deferred[1] = 0.
(No. 1 and No. 2).

* * * * *

At this point in our discussion it would add precision if the opinions of the Amalgamated Tribunal could be analyzed, for the purpose of seeing what importance was given to the various elements determining the exchange of securities : yield, security and priority ; but " the Tribunal presented no report to Parliament nor published anything except actual schemes."[2] We are, therefore, compelled to limit the discussion of this point considerably ; to present some of the problems raised rather than to assess the actual weight given to the elements named above in particular instances. The following sections present examples of the issues raised before the Tribunal in specific cases.[3]

1. The relative strength of securities from the standpoint of net revenue needed to meet the dividend requirements of each class of stock was a factor in the equation of exchange which the Amalgamation Tribunal had to consider. The following table,[4] showing the position of some of the securities of four of the constituent companies of the London and

[1] In this case, 276,666 shares were wiped out as valueless. The Forest of Dean Central was transferred to the Great Western without any consideration being given.

[2] Letter of Secretary of the Tribunal, Mr. W. E. Simnett, to the author.

[3] The material upon which the Tribunal based its decisions was presented as evidence before it in each case. The cases were reported in *The Railway Gazette*, 1921–1923.

[4] W. J. Stevens, *The Railway Gazette*, June 30, 1922.

North-Eastern Railway, from this standpoint, illustrates to what extent the margin of safety varied :

Class of Stock	Highest		Lowest	
		per cent.		per cent.
Debenture -	Great Central -	50·0	North-Eastern -	15·7
Guaranteed	Great Northern -	23·6	North-Eastern -	7·3
Preference -	Great Central -	38·9	North-Eastern -	15·0
Ordinary -	North-Eastern -	52·1	Great Eastern -	20·8
Balance -	North-Eastern -	9·9	Great Northern -	·65

2. The position of reserves varied widely in the balance sheets of the various companies about to be amalgamated. This condition had to be reflected in the rates of exchange of securities. In the following reserve summary ten companies have been selected to show the extent of difference existing in April, 1921 :[1]

Company	Total Reserves, Insurance and Depreciation Funds	Per cent. of Reserves to Capital
Barry - - - -	556,000	8·8
Great Central - - -	2,895,000	5·1
Great Eastern - - -	3,409,000	6·3
Great Northern - - -	2,213,000	4·3
Great Western - - -	13,186,000	11·7
London & North Western -	10,218,000	8·3
Midland - - - -	12,262,000	9·5
North-Eastern - - -	10,448,000	12·3
Caledonian - - -	1,707,000	3·1
London & South-Western -	3,487,000	6·9

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3. The most contentious case presented to the Tribunal was that of the financial terms between the Caledonian and the London, Midland and Scottish Railway. The Caledonian was the only constituent company which had not agreed to

[1] *The Railway Gazette*, April 15, 1921.

amalgamation terms before January 1, 1923. The case was taken up by the Tribunal on April 30, 1923; the decision was not reached till June 29.[1]

The dispute at issue involved the value of the deferred ordinary stock of the Caledonian. The London, Midland and Scottish Railway, basing its calculations on 1913 earnings, made the following offer:

Caledonian Railway	London, Midland and Scottish Railway
£100 preferred ordinary to be exchanged for - - - - - -	£75 4 per cent. preference
£100 deferred ordinary to be exchanged for - - - - - -	£8 ordinary

The Caledonian interests refused this offer, claiming that "other circumstances in the case" justified them in demanding that capitalization be based on 1922 earnings. The Tribunal award was as follows:[2]

Caledonian Railway	London, Midland and Scottish Railway
£100 preferred ordinary to be exchanged for - - - - - -	£50 4 per cent. preference £13 6s. 8d. ordinary
£100 deferred ordinary to be exchanged for - - - - - -	£10 ordinary

4. The financial columns of *The Times* for the year 1922 give many examples of the discussions which were going on in the City while the Amalgamation Tribunal was working out its complicated exchange formula. The following statement from the pen of the financial editor is evidence of the constant clash of opinions which existed at the time:

"A few days reflection has produced some complaints as to the justice of certain terms of the Eastern Railway fusion. One of the grounds for these has been the different treatment of Great Eastern ordinary and Great Northern Deferred. The former is to receive £35 preferred and £45 deferred in

[1] *Railway Amalgamation in Great Britain*, W. E. Simnett, pp. 67, 69.
[2] *Statutory Rules and Orders*, 1923, No. 827.

the new combine, and Great Northern Deferred a similar amount of preferred and £65 deferred. A correspondent writes to point out that, during the past fifteen years, the advantage in dividends has been with the Great Eastern; that the price of Great Eastern stock has exceeded the Great Northern Deferred, and that the better terms of the Great Northern therefore need explanation. If the comparison of price had been the sole factor in determining the apportionment of new stock, the task would have been a comparatively simple one. This, however, is far from the case. Apart from dividend and price a variety of considerations have perforce weighed. Such matters as the financial position of the company, particularly as regards reserves and the physical position of its track, rolling stock and stations must be passed in review. Dividend and price form a narrow basis on which to urge unjust treatment."[1]

5. The Tribunal was compelled to treat "worked lines" which received fixed rentals as special cases. Generally speaking, such properties were in a strong position, but not always. In many cases, the stock of such railways was exchanged for debentures of the amalgamation companies.[2] On the other hand, some debentures were exchanged for preference stock because of the insecure position of the former.[3]

6. One interesting case, involving the Lee-on-Solent Railway, decided by the Amalgamation Tribunal, concerned a worked line which had no value in the opinion of the amalgamation company, the Southern Railway. The facts of the case, as described by Mr. Simnett, were these:

"The line had been worked by the London and South Western since 1909, under an agreement which provided that any excess of gross receipts over £1,400 a year should be divided in the proportion of 75 per cent. to the Lee Company and 25 per cent. to the working company. The receipts had

[1] *The Times*, August 14, 1922.

[2] Example: Stock of the Arbroath and Forfar Railway was exchanged for L.M.S. debentures.

[3] Knott End Railway Debentures were exchanged for L.M.S. Preference (1923) Stock.

never reached £1,400 in any year . . . the land was leased from the War Department which had the right to remove the railway without compensation. There were outstanding liabilities exceeding £14,000 which, as the company was insolvent, would not be paid, and the Southern Company argued that it was not incumbent upon the Tribunal under the Act to transfer the liabilities on absorption."[1] The Tribunal decided the case against the Southern Railway.

7. Cases were presented to the Tribunal involving the question of the increased value of an absorbed company as a component part of the amalgamation. In these cases the argument used was that the additional line had emergency value as an alternative route.[2]

* * * * *

One final point with respect to the exchange of securities remains to be discussed: the status of holders of "trustee stocks."

It was a basic principle of the Railways Act, 1921, that, as far as possible, no security holder should be in a worse position after amalgamation than he was before. It is, therefore, natural that we should expect to find—as we actually do—that the Act protected the holders of pre-amalgamation "trustee stocks" amply.

"Trustee Stock" is defined by statute law. Thus the law of England provides that a trustee may invest funds "in the debenture or rent charge or debenture of any railway company in the United Kingdom incorporated by special Act of Parliament, and having, during each of the ten years last before the date of investment, paid a dividend at the rate of not less than 3 per cent. in its ordinary stock."[3]

The Trustee Act of Scotland classified "trustee stock" as "preference guaranteed, firm, annuity or rent charge stock, the dividend on which is not contingent on the profits of the year, of such railway companies in Great Britain as have paid

[1] *Railway Amalgamation in Great Britain*, W. E. Simnett, p. 70.
[2] This was the point raised by the Exeter railway of the Great Western group.
[3] Stock Exchange Official Intelligence, 1928, p. 2038.

a dividend on their ordinary stock for ten years immediately preceding the date of investment."[1]

The Railways Act, 1921, made all railway stocks of the four groups, other than ordinary, eligible as trustee stocks, by the following section :

" An amalgamated company or a company constituted by a preliminary amalgamation scheme shall be treated as if it were a railway company in Great Britain incorporated by special Act of Parliament and had, in each of the ten years immediately before the date of amalgamation, paid a dividend at the rate of not less than three per centum per annum on its ordinary stock."[2]

As a result of this provision in the Railways Act, 1921, those who held " trustee stocks " before the grouping did not suffer by amalgamation. On the other hand there were some cases—for example, holders of Great Central and London, Chatham and Dover debentures—in which shareholders gained by the reorganization : they were given " trustee stock " in exchange for securities which did not have this rating.

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The consolidation of British railways resulted in a reduction of the total capitalization. According to the Railway Returns for 1924, the capital position of the new undertakings stood as follows :

	Southern	Great Western	London, Midland & Scottish	London & North Eastern
	£	£	£	£
Nominal capital exchanged -	159,000,000	148,000,000	541,000,000	352,000,000
Nominal capital issued -	150,000,000	137,000,000	399,000,000	362,000,000

	£
Total capital exchanged - -	1,200,000,000
Total capital issued - -	1,048,000,000
Reduction in Capitalization -	152,000,000

[1] Stock Exchange Official Intelligence, 1928, p. 2038.

[2] Railways Act, 1921, 15. Further provided for by Sec. 1 of Trustees Act of 1925.

The total number of securities was reduced by 500; and the listed railways fell in number from 350 in 1920 to 30 in 1923.

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In examining the process by which the amalgamation of the British railways was accomplished, we have seen the speed with which consolidation was effected, and have had a glimpse at the maze of legal and financial details which were involved in the settlement. In the actual accomplishment of this task the Amalgamation Tribunal was the directing agency.

The work of the Amalgamation Tribunal is an excellent example of the growing tendency of democratic governments to function through bodies having almost unlimited administrative discretion. Parliament laid down the broad principles of the amalgamation of British railways, but the Amalgamation Tribunal was given a free hand in working out the details and bringing consolidation to fruition. It would be difficult to find a better example of the enlightened use of delegated authority than the course of action pursued by this Tribunal.

CHAPTER V

THE ECONOMIES OF AMALGAMATION

"The Railways Act will introduce order, economy, and enterprise to the working of our railways."—SIR ERIC GEDDES.

WHEN the British Government grouped one hundred and twenty railways into four, it had in mind one objective: a more efficient railway system for Great Britain.

The chief sponsor of the amalgamation policy, Sir Eric Geddes, held this objective to be its only justification. "It was not done," he said, "to make a picture on the map;" rather, it was done to promote "order, economy and enterprise." While doubting the wisdom of amalgamation, *The Railway Gazette*, which found little occasion to agree with Sir Eric, accepted his test—the test of economy—as the one by which the amalgamation of British railways should ultimately be judged. Specifically it said: "The success or failure of grouping depends on the economies which it is hoped will follow."[1]

Accepting this test as our standard of judgment, what can be said of the results of the amalgamation of British railways?

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In making an appraisal of the results of amalgamation, from the standpoint of the economies effected, we find: first, that there have been—and still are—different opinions regarding the practical benefits of grouping; second, that there are serious difficulties in measuring with any degree of accuracy the economies which are the direct result of amalgamation; third, that there have been certain conditions in the British situation which have militated against the achievement of economies; fourth, that there are some important

[1] *The Railway Gazette*, May 20, 1921.

and tangible results from the amalgamation, results which must be either credited as economies, or as tendencies which will ultimately lead to economies. These four points suggest the main sub-headings of this chapter.

I

There have been many shades of opinion regarding the wisdom of grouping, and especially with respect to the practical economies which may be achieved by the amalgamation of British railways. On the optimistic side have been those who, like Sir Eric Geddes, expected " very considerable economies ; " on the doubtful side have been those who believed with *The Railway Gazette* that the whole scheme " rests on a very flimsy foundation, a strange belief in the great economies to be derived from grouping."[1]

Opinions on both sides will be reviewed in order to show the divided sentiment existing during this period when the amalgamation of the British railways has been going through its initial stages. The opinions which will be presented have been selected as being typical of the sentiment expressed by members of Parliament, by editors of current publications, and by leaders in the railway world.

* * * * *

In the Parliamentary group Sir Eric Geddes, Minister of Transport, made the boldest claims of any regarding what the railways and the public might expect from grouping. Sir Eric made the assertion in the House of Commons in 1921 that, due to amalgamation, within six or seven years, there would possibly be a saving of £25,000,000 a year. Sir Eric claimed that some estimates reached the figure, £45,000,000.[2] The Attorney General told the House a few days later that " it was never suggested that the figure, £25,000,000, represents the whole of the economies which might be expected from the Bill."[3] *The Economist*, referring to this £25,000,000

[1] *The Railway Gazette*, May 13, 1921.
[2] 142 H.C. 353.
[3] 142 H.C. 628.

estimate of the Minister, commented at the time: "Though he suggested a round total, we can hardly suppose that it was merely a rough estimate. It means less than ten per cent. of the present expenditure. Looked at in that way, it certainly does not seem an excessive percentage. The outsider can feel confident that the figure is very large."[1]

Sir Eric Geddes made the following defence of his estimate one year after it was made: "A committee of six, composed of men who are as well qualified as any in this country, advised me that certain economies could be effected. The best figure we could get gave us something over £20,000,000. But even that was not exhaustive. An entirely independent estimate was made in 1918, which put the figure of possible economies, on 1913 prices, in the neighbourhood of £20,000,000." In 1923, Sir Eric still maintained that his calculation of possible economies was not excessive.[2]

If the details of this estimate were available for analysis it would be highly interesting to the public and to the railways. When their production was asked for evidence was presented to the Railway Rates Tribunal,[3] however, in which it was stated that, in the opinion of the Parliamentary Secretary of the Ministry of Transport, the display of the documents relating to these estimates would be "prejudicial to the interests of the public service." Not only has this data on which Sir Eric based his calculations been withheld, but no comprehensive study of possible economies by any authoritative engineer or economist has been published.

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The opinions of Sir Eric seem to have been similar to those of Mr. Walter D. Hines, former Director General of Railroads in the United States, who stated his views on the advantages of consolidation as follows:

"The real economies which will come from consolidation will be important in scope and significance. The elimination

[1] *The Economist*, June 4, 1921.
[2] *The Economist*, April 14, 1923.
[3] Proceedings of the Railway Rates Tribunal, forty-first day, January 14, 1926.

of switching, the standardization of materials, the concentration of purchases, the sending of traffic by shorter routes, the elimination of interline accounting, the greater ability to utilize shops and equipment on all parts of the system to the maximum extent, all constitute real and important elements of economy. Perhaps one of the most important matters from the standpoint of economy and improved service will be the fact that freight cars of the system will be ' at home ' on all parts of it so they can be put to public service without limitation, and so when in need of repairs they can be fully repaired where they are, instead of being sent back to the home line, with possible necessity for minor repairs away from home to be later discarded or duplicated on the line."[1]

A more specific American statement of the economies to be expected from the amalgamation of railway properties is that made by the President of the Great Northern before the Interstate Commerce Commission in urging the consolidation of the Great Northern, Northern Pacific and Burlington Systems :

" I think the economies that have been estimated at $10,000,000 will be realized, and that there will probably be further economies in addition to those.

" The reasons I feel the way I do are that first of all I am very much impressed with the fact of the enormous economies in the way of eliminating work, that must be done so long as the properties are operated separately, that will be effected if the Northern lines and the Spokane, Portland and Seattle can be combined, and the whole property operated as one.

" Such large items as the elimination of 750,000,000 ton miles annually, and doing that by sending the freight in every case over routes that have better physical characteristics in the way of grades and curvature and rise and fall ; the fact that there will be 18,000 switch engine shifts eliminated every year ; the fact that more than 1,500,000

[1] Harvard Business Review, July, 1923.

tons of coal, costing about 88 cents a ton f.o.b. cars, will be substituted for coal that costs very much more now; that a great deal of work that is necessary to be done by the two companies operating separately would be entirely eliminated: all makes an impressive showing as to the avoidance of work that must cost a great deal of money.

"We may not all agree as to the exact amount, but there cannot be any difference of opinion about the effect of eliminating this enormous amount of effort."

* * * * *

In Parliament, as elsewhere, the programme of amalgamation has had both supporters and opponents. Typical of those who have believed in the satisfactory outcome of the consolidation scheme is Viscount Peel. In the latter part of 1926, His Majesty's Government was asked to state what advantages had been derived by the public from the passing of the Railways Act, 1921. According to *The Times* Viscount Peel replied that "by amalgamation, the stronger railway companies had helped the weaker to recover from a difficult financial position, and by increasing economy and efficiency had benefited traders in reduced railway rates. The amalgamation of the companies had enabled substantial economies to be secured in overhead charges. In railway operations they had secured, mainly by co-ordination of competing services, the use of alternative routes, the centralization of management and control, and standardization of rolling stock. The financial position of the groups enabled them to embark on extensive improvements."[1]

A more non-committal attitude was that exhibited in 1927 by Colonel Ashley, the present Minister of Transport. In answer to a question similar to the one put to Viscount Peel, Colonel Ashley replied: "As my honourable friend is no doubt aware, the Railways Act of 1921 provided for an extensive reorganization of the railways. Important changes of this kind cannot yield their full results at once."[2]

In the Parliamentary group which has regarded grouping

[1] *The Times*, November 18, 1926.
[2] 203 H.C. 189.

as a disappointment, if not a complete failure, no one has been more outspoken than Lord Monkswell. In 1927, Lord Monkswell gave full vent to his feelings by telling the House of Lords that " the claim which was made that railway amalgamation would produce large economies by the elimination of competition was one more illustration of the contempt for the intelligence of the public which was characteristic of the railway hierarchy."[1]

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Among the current publications there have been comparatively few comments regarding the practical workings of amalgamation since the passage of the Railways Act, 1921. In the main these comments have been much too general to be enlightening.

The Railway Gazette was frankly opposed to the grouping scheme before the passage of the Railways Act. Even as late as February, 1922, this publication predicted that " there would be possibly no resultant economy in the long run ; "[2] and while the details of grouping were in process it raised the question, " Is the game worth the candle ? " Since then, however, *The Railway Gazette* has shown no disposition to embarrass the Government or the railways under the new *régime*. It has therefore remained silent, expressing no opinion regarding the success or failure of amalgamation.

Modern Transport has, since the passage of the Railways Act, been disposed to approve the results of the amalgamation scheme. Thus we find this journal, late in 1923, pointing out some " indications of more economical working " in the following editorial : " Although it is impossible to suppose that the larger economies to be expected from the grouping will have much effect in the first year, some indications of more economical working have been noted from time to time. The average train load in the freight department, for instance, has shown an increasing tendency. There are also certain directions in which small economies may have

[1] *The Times*, February 12, 1927.
[2] *The Railway Gazette*, February 10, 1922.

already resulted from the grouping, such as rearrangement of higher officials' duties, as some of their number retire. In 1922, accounts showed that one of the old companies was over engined, judging from a comparison of the average train miles run per locomotive with similar figures of other companies of the same group. Experiments in the transfer of some of its locomotives to other sections of the same group have been made. In these and similar directions the benefits of grouping should have made a small beginning during 1923."[1]

In 1924, *Modern Transport* indicated that it was not expecting immediate results from amalgamation, and pointed out that " it is obvious that the economies expected to result from the unification in four groups of the former one hundred and twenty separate companies will not be realized until the new undertakings have settled down. There is, however, evidence that the companies are working along the right lines."[2]

Editorially, *The Times* has been generally friendly to the idea of grouping from the very beginning. In 1921, it believed that " improved and unified methods, contemplated under the new grouping scheme, will eventually eliminate wasteful expenditure to a large aggregate amount."[3] Two years later this same paper reaffirmed its belief in the ultimate results : " The four groups of railways have been in operation for some months, and while it is early yet to say anything of the economies which will be effected ultimately, it is evident they will be considerable."[4]

* * * * *

Railway leaders, in general, have been inclined to say little about amalgamation. They have been so busy effecting the new group organizations that they have not been disposed to talk about the effectiveness of amalgamation. They are, undoubtedly, trying to make it work ; and certainly most

[1] *Modern Transport*, November 24, 1923.
[2] *Modern Transport*, January 5, 1924.
[3] *The Times*, *Railway Supplement*, August 15, 1921.
[4] *The Times*, August 17, 1923.

of them believe that the policy will succeed in the long run. Meanwhile they have been perhaps unduly cautious in expressing positive opinions, due to their fear that the public will be led to form false hopes and become impatient for immediate results.

The leading British railway economist, the late Sir William Acworth, wrote in 1923 : " No one familiar with the methods of other countries can doubt that great economies are obtainable by the modernization of some of our insular practices." Sir William, however, believed that the most important economies of amalgamation would be a by-product rather than a direct result.[1]

The Railway Companies' Association, while favouring the principle of consolidation, issued the warning as early as 1920 that Sir Eric Geddes' estimate of anticipated economies was extravagant : " The Association believes that while economy may ultimately result from a suitable scheme of grouping, it will not be to the extent contemplated by the Minister."[2]

Sir Josiah Stamp, President of the London, Midland and Scottish Railway, has taken the position that time is the important factor in the amalgamation scheme as far as economies are concerned. In 1926 he said : " The question is asked, ' Have we realized the savings predicted ? ' I answer, ' No.' Economies of amalgamations take time to become effective. We hope that the amalgamations and economies will be effective later. But it takes a long time to work them out."[3] On another occasion, Sir Josiah advised against taking too seriously the " glibly given and blithely estimated economies of the politicians."[4]

The warning of Sir Josiah Stamp against the great expectations of economies from amalgamation is in harmony with the opinion of the Chairman of the Interstate Commerce

[1] *Economic Journal*, March, 1923.
[2] Letter to the Minister of Transport, December 8, 1920.
[3] *The Railway Gazette*, July 2, 1926.
[4] Presidential Address, Railway Students' Association, December 8, 1927.

Commission who, in 1926, made the following statement to Congress :

> " We have an impression that there has been a tendency toward exaggerating the possible economies and other advantages of great consolidations, and we have been strengthened in this impression by the evidence which has been brought to our attention in connection with the unifications which we have been asked since 1920 to approve. We think that the country ought not to be led to believe that great consolidations of railroad properties involve any probability that the general level of freight rates may thereby be substantially reduced. Economy and efficiency in operation are much more than a matter of size. Our judgment is that the country ought not to be rushed headlong into any gigantic plan of consolidation which may prove later to be ill-conceived and based upon mistaken premises, but that it ought instead to proceed cautiously without any undue anticipation of possible beneficial results, feeling its way along step by step, watching and analyzing results, and allowing experience to guide."

One of the British railway officials most favourably disposed to the amalgamation policy has been Sir Felix Pole, General Manager of the Great Western Railway. Sir Felix presented his typical attitude in an address to the citizens of Cardiff :

" The outstanding result of grouping so far as Cardiff is concerned must surely be the evidence all around the district of the practical measures adopted to bring the lines, stations and appliances up to date. It will take a long time, and maybe progress has not been so rapid as some of us hoped, but when it is remembered that the Group was not completed until 1923, the number and magnitude of the schemes of improvement already in hand must be very gratifying."

Lord Claud Hamilton, while he was Chairman of the Great Eastern Railway, made an enthusiastic prediction of the results of amalgamation ; " When you consider the effect of standardization of rails, of rolling stock, and of locomotives, where practicable, the purchase of sleepers and

rails *en bloc*, and all other materials, including coal, and the suppression of locomotive shops where they will not be required, the savings will run into millions of pounds."[1]

The railway reports have contained few direct references to amalgamation. Whenever the subject has been mentioned, however, it has generally been in an optimistic tone. From the various reports of the annual meetings in which any reference has been made to amalgamation, two are selected as typical. The first is taken from the address of the Chairman, at the annual meeting of the Southern Railway in 1924: "It is true that the amalgamation of railways had brought many difficulties, but it had also produced many advantages. We have already prepared plans for very considerable improvements, many of which would not have been possible if it had not been for amalgamation."[2] The second comment is selected from the proceedings of the annual meeting of the London, Midland and Scottish Railway, 1926: "We have made a considerable record of achievement. Of course amalgamation does mean that all sorts of difficulties arise, difficulties which cannot be overcome except in the course of time.[3] We have surmounted a great number—we are on the way to surmount the rest."

Sir Henry Thornton, formerly General Manager of the Great Eastern Railway, at the time when he was assuming his new duties as President of the Canadian National Railway, declared: "My recent observations lead me to believe that the result of British amalgamation has been disappointing, in so far as it has resulted in less efficiency than people expected."[4]

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It is evident that the divergent views which have been presented represent various stages of hopes or fears. Although

[1] *The Times*, January 25, 1922.

[2] Annual Meeting, 1925.

[3] At the Annual Meeting of the L.M.S., February, 1928, credit is given to the economies resulting from amalgamation. This is referred to later in this chapter.

[4] *New York Herald Tribune*, December 6, 1925.

these opinions throw little light on the actual performance of the British railways under the *régime* of amalgamation, they show the different states of mind regarding the problem of practical economies which have prevailed during these crucial years.

II

There are serious difficulties in measuring with satisfactory precision the economies resulting from amalgamation. These difficulties will be considered briefly.

1. The process of amalgamation had been going on for a considerable length of time in Great Britain, as has been indicated in Chapter IV. Many of the results of grouping had, therefore, been attained before the consolidation sponsored by the Act of 1921 became effective. Using the working alliance which was in effect between the Lancashire and Yorkshire Railway and the London and North Western Railway as an illustration, *The Railway Gazette* pointed out in April, 1921, that " most of the operating economies have already been achieved." During the war, for example, the Government operated the railways as a more or less unified system. Such an economy, therefore, as the " common user " of wagons was achieved before the passing of the Act of 1921 and cannot be credited as a product of amalgamation.

2. It is difficult to isolate the results of amalgamation and to label them as the distinct products of this policy. All improvements that have been made in railway operation since 1923 can hardly be attributed to grouping. *The Times*, while endorsing the policy of amalgamation admitted that " some of the improvements in services would have been made if there had been no grouping."[1] Changes in railway operation due to the exercise of business prudence, for example, cannot be attributed to amalgamation.

A consideration of this character immediately shifts the burden of proof in favour of those who contend that without amalgamation the British railways would be as well

[1] *The Times*, August 17, 1923.

off to-day as they are. Measuring the economies of amalgamation is, therefore, not so simple as taking a photograph "before and after," and observing the contrast; because, while in the case of the British railways the picture would show a change, it would be very easy to attribute either too much or too little of the change to the effect of amalgamation. Realizing the nebulous character of the economies of grouping, Sir Ralph Wedgwood, General Manager of the North Eastern Railway, once remarked that the economies of amalgamation "cannot by any ingenuity be isolated; the only savings that really count must be spread out over many years."[1]

3. The measure of the economies of amalgamation is a comparative one. Sir Felix Pole has pointed out that "the real test is: What would have been the cost of operating all the one hundred and twenty lines as separate undertakings with present day burdens?" Sir Felix estimates, according to *The Times*, January 7, 1927, that on this basis the annual savings due to amalgamation amount to £10,000,000. Getting into such a zone of relative estimates, however, leaves ample room for conjecture.

4. Since 1923, business conditions in Great Britain have been peculiarly exceptional. Consequently, it is difficult to measure statistically specific operating results which are affected by such complex forces as general business conditions, changes in rates, fares, and prices, labour disturbances, and the development of motor transport. We are not studying a phenomenon in a vacuum, but in a topsy-turvy world in flux and flow.

Some special events disturbing the equilibrium of normal business have been the Wembley Empire Exhibition in 1924–25, the engineers' strike (partial) in 1924, the coal strike in 1926, and the general strike in 1926.

The unsettled condition of business since 1922 is reflected in one barometer of trade which is closely associated with the railways, pig iron production. The following table

[1] *The Economist* September 16, 1922.

shows pig iron production and furnaces in blast (compilation of National Federation of Iron and Steel Manufacturers) :

	Pig iron production (in millions of tons)	Average number of blast furnaces in operation
1913 -	10,260	338
1922 -	4,902	132
1923 -	7,440	203
1924 -	7,307	185
1925 -	6,261	151
1926 -	2,458	69

With such erratic business conditions evidently in mind, Viscount Peel said to the House of Lords, in November, 1926 : " If the years that followed amalgamation had been more normal it might have been possible to realize economies."

5. Some economies are negative, based on the theory that a pound saved is a pound earned. The Great Western Railway, for example, claimed in 1924 an item in economy which illustrates this point. Before amalgamation the Great Western Railway planned the widening of a certain section of its line. By taking over the Barry Railway, however, this expenditure became unnecessary. The estimated economy in this one case was £87,500.[1] How far savings of this character have been made, and how much future expenditure has been avoided it is almost impossible to say.[2]

6. Economies should be measured as net, not gross. From all savings achieved as a result of amalgamation there must be deducted the costs of introducing the changes which have been brought about. " People talk glibly about economies, but it is not realized that physically they are

[1] Proceedings Railway Rates Tribunal, April 25, 1925.

[2] Evidence of James Milne, Assistant General Manager of the Great Western Railway ; " When we were told that the Barry Company were going to be part of the Great Western we were able to say that the line (Cardiff–Bridgend) would not be required."—Question 5897, Railway Rates Tribunal, April 25, 1925.

often most expensive to bring about and need considerable capital resources."[1]

In the case of the Great Western Railway, when it introduced the 20-ton wagon,[2] and improved the docks of the South Wales ports, a large capital expenditure was involved. At the very beginning £200,000 was appropriated for new and adapted tips, in addition to £175,000 for improving the lines serving them. The actual expenditure on the wagon programme up to March, 1928, amounted to £500,000. In like manner the London, Midland and Scottish Railway has spent £28,000,000 in the modernization of its rolling stock during the past few years.[3] In order to save money it is often necessary to spend money. Economy has its price.

In this connection it is necessary to distinguish between improvements which are financed out of replacement reserves, and those which have been created out of capital. For example, in the electrification of the Southern Railway, many of the coaches used were reconstructed steam vehicles. The cost of refitting was not charged to capital at all; it was charged against carriage renewal fund, inasmuch as it took the place of the renewal of those coaches at the time they became due for replacement. Half the cost of the electrical equipment of trains was charged to the locomotive renewal fund. This was done on the principle that electrification has enabled a large number of locomotives to be dispensed with, so that the sums set aside for locomotive renewal would not be required in the future.[4]

[1] Sir Josiah Stamp, Presidential Address, Railway Students' Association, December 8, 1927.

[2] In order to encourage the use of the larger wagon, the Great Western constructed 1,000. These are hired to colliery owners. The Railway gives a 5 per cent. reduction in conveyance rates for coal carried in fully loaded 20-ton wagons, together with a reduction of 1½d. a ton for shipping and weighing coal in such wagons.

[3] Report of Chairman, London, Midland and Scottish Railway, February 24, 1928.

[4] Sir Herbert Walker, General Manager, Southern Railway, remarks at meeting of Institute of Transport, April, 1928.

In the case of the £28,000,000 expenditure made by the London, Midland and Scottish Railway, which has just been mentioned, the maintenance reserves were drawn on for £23,000,000; only £5,000,000 came from the capital account.[1]

* * * * *

In stating the difficulties of measuring the economies of railway grouping, it is obvious that one should exercise great care in making claims for or against amalgamation. On the other hand, it does not follow that because there are difficulties, an attempt to appraise the results of amalgamation should not be made.

III

There have been some powerful factors in the British railway situation which have militated against the achievement of economies. These obstacles have been, in some cases, unique to the railways of Great Britain; in other cases, they would exist wherever the experiment of amalgamation is attempted. These obstacles will be briefly discussed.

1. The merging of the personnel of the various companies undoubtedly produced a certain amount of friction, preventing the smooth working of amalgamation. Men who were on opposing teams suddenly found themselves playing on the same side. It was soon discovered, however, that the amalgamation of minds cannot be accomplished in a day by Government fiat. Since "organization is a growth, and is the result of discipline, confidence, and loyalty,"[2] the newly organized British railways faced a severe test when they were brought into being.

Sir William Acworth appreciated this angle of the problem when he said: "Changes such as these will meet with opposition from thousands of officials and employees, will

[1] Report of the Chairman, London, Midland and Scottish Railway, February 24, 1928.

[2] M. A. J. County, Vice-President, the Pennsylvania Railroad, *American Economic Review*, March, 1924.

upset tradition, disturb long-established habits, and may uproot large numbers from their settled homes. It will be natural for the new managements to hasten slowly."[1] Speaking in 1927, Mr. William Whitelaw, Chairman of the London and North-Eastern Railway, recalled the difficulties of the early days of amalgamation :[2] "It is four years since the seven pre-war railway companies became one ; we had to start with seven traditions, seven loyalties, and with more than one language."

2. The inability of the British railways to reduce materially the amount paid out in wages during the first five years of the amalgamation *regime* has lessened the possibilities of economies.

Before amalgamatiom became effective, the British public seemed to expect drastic reductions in labour costs, if the following paragraph from *The Times*, June 16, 1922, represents a general opinion :

> "In the near future, the only material reduction which is likely to be brought about in costs will arise from the gradual fall in the wages bill and the decline in prices of material. These, as compared with the high levels reached a year ago, might ultimately represent a saving of £60,000,000 or £70,000,000 a year ; and it is not, perhaps, unduly optimistic to suggest that, when it has been possible to effect savings under other heads (grouping) reduction on the high-water mark of railway expenditure of about £100,000,000 a year might be achieved."

Such extravagant expectations, however, were not in keeping with the provisions of the Railways Act nor with the experience of previous railway amalgamations in Great Britain.

Under the Railways Act, 1921, the permanent employees of the railways, on amalgamation, were protected in one of three ways : They were to retain their posts ; they were to

[1] *Economic Journal*, March, 1923.
[2] *The Times*, January 10, 1927.

be given similar work ; or they were to receive compensation for the loss of their positions.[1]

In the past the grouping of British railways does not seem to have worked an especial hardship on labour. Generally the railwaymen have not lost employment. This is the conclusion reached by Mr. W. A. Robertson in his book, *Combinations Among Railway Companies*.[2] For example, when the working agreement between the Caledonian Railway and the North British Railway was effected, forty-three men were dismissed from the service of the North British Railway. Of these, thirty-six found employment on the Caledonian ; six were employed on the Grangemouth Docks. Only one man was not accounted for—and he was drowned !

When, therefore, the Railways Act, 1921, threw safeguards around railway employees, there was ample precedent for such a policy in the history of Great Britain.

The present railway point of view with respect to the protection of employees is expressed by Sir Josiah Stamp, who pointed out in February, 1928, that " amalgamation of staffs obviously allows positions to be dispensed with, but just as obviously the clerical staff displaced cannot be summarily discharged, and the Act properly protects them."[3]

In June, 1924, the Minister of Transport was able to say: " I have no reason to suppose that any considerable number of railway officers and servants have been dispensed with as a result of railway grouping."[4] In reality, the number of employees on British railways is greater at the present time than it was in 1913,[5] as the following statistics indicating

[1] The total amount of compensation paid by the four groups, on June 30, 1924, amounted to £1,400,000 approximately. Judgment of the Railway Rates Tribunal with respect to anticipated economies, under Railways Act, 1921, Sec. 58 (1) proviso (estimated by capitalization of 5 per cent. deduction due to compensation).

[2] P. 73.

[3] *The Times*, *Annual Financial and Commercial Review*, February 7, 1928.

[4] 175 H.C. 458.

[5] The introduction of the eight-hour day, February 1, 1919, has been a factor which has prevented the reduction of the number of employees.

the number of employees for one week each year show :

Year	Employees
1913 - -	625,000
1921 - -	735,870
1922 - -	676,802
1923 - -	681,778
1924 - -	700,000
1925 - -	702,062
1926 - -	689,264
1927 - -	683,077

* * * * *

Wages represent from fifty to sixty per cent. of the operating expenses of British railways.[1] Since any large reduction in the number of employees has been rendered impossible for many years under the Railways Act, 1921, the area of operating costs in which substantial economies might be effected is distinctly limited. It is partly on account of this labour situation, which includes both the number of men employed and the level of wages which has, in general, been maintained on a war basis, that the operating ratio on British railways has increased from 63·5 per cent. in 1913 to 80·8 per cent. in 1927.

3. Not only has the Railways Act, 1921, prevented the railways from reducing the number of their employees but by this very provision it has also tended to retard the introduction of labour-saving machinery.

A machine is ordinarily introduced in a factory or on a railway when it pays to do so : when the machine can do the work of men more quickly or more cheaply than they. When wages are low manual labour has a better chance to compete with the machine ; when wages are high the machine has a better chance to compete with manual labour.

The ordinary business enterprise has only to make this

[1] In 1924, wages absorbed the receipts of 197 days ; materials and supplies, 52 days ; coal, 27 days ; taxes, 13 days ; insurance and compensation, 5 days ; fixed charges, 5 days ; dividends, 67 days.

type of calculation: weigh the cost of maintaining labour or the machine; on the results of such an estimate the manager decides for or against purchasing the machine. The decision may mean that old and efficient employees are thrown out of work; but it cannot be helped: it is the price of efficiency.

Under the Railways Act, 1921, the British railways have had to be more cautious in making a decision which might lead to labour displacement than ordinary business enterprises. According to the Railways Act, a man, who at the time of amalgamation was regarded as a permanent employee, is protected from the consequences of being displaced by a machine. As has been pointed out, either he may demand work of the same grade to which he has been accustomed, or he may demand compensation and retire. This makes the introduction of machinery a very expensive policy for the British railways.[1]

The following tabulation compiled from the proceedings of the National Wages Board shows the position of one railway, the Great Western, from the standpoint of salaries and wages:

Year	£	Per cent. increase over 1913
1913 - -	8,221,444	—
1922 - -	20,438,347	148·60
1923 - -	20,771,199	152·63
1924 - -	21,700,448	163·95
1925 - -	21,602,460	162·76
1926 - -	18,561,526	125·77
1927 - -	20,601,568	150·58

[1] In one important railway office in England, one hundred and ten employees work at tabulating items which could be done better by machines. When asked why machines were not introduced, the manager replied that this would put 60 per cent. of his staff out of employment, as it would be difficult to find other work for them on the railway; and the railway was unwilling to compensate them and allow them to retire. By 1931, the manager estimated, enough of the employees will have retired on a pension to make the introduction of machines possible.

For the four amalgamated companies the position is as follows :

Year	£	Per cent. increase over 1913
1913 - -	47,386,000	—
1923 - -	117,516,000	148·00
1924 - -	119,827,000	152·87
1927 - -	115,716,000[1]	144·00

* * * * *

Before the war, this legislation which protects employees would not have been so important because railway wages were very low. There was, therefore, less incentive for the railways to substitute machines for manual labour. As a result of the war, however, the railway wage bill increased approximately 150 per cent. ; and the general level of wages has been maintained since the war period. Under such a situation the railways would normally wish to purchase machinery to do the work of high-priced labour ; but under the conditions imposed by the Railways Act, 1921, this would mean, in many cases, the costly process of compensating men for the loss of employment in addition to the capital expenditure for the machine. The result is that the railways have tended to lag behind the mechanical standards of efficiency which prevail in ordinary business enterprises.

4. Schemes of standardization, which undoubtedly are important elements in the economy programme, are arrived at only after patient investigation by railway engineers and executives. To install standards of equipment which would later have to be altered would defeat the very objects of amalgamation.

5. In many cases it has been found advisable to avoid scrapping capital equipment until it becomes worn out. Locomotives built before the war, with a normal length of life of thirty-three years, have in many cases been retained in service, although the types themselves may be abandoned for

[1] Estimated on basis of G.W. figures.

purposes of future construction. Economies, from the point of view of repairs, are obviously delayed for many years by a situation of this kind. In a large sense, only through renewals will the equipment of lines conform to the standards which are set. From this point of view many of the larger economies have been deferred until 1940–1950.

6. Amalgamation has been introduced during a period of falling prices. It has been, therefore, the natural tendency for railway executives to delay purchasing new equipment until they are convinced that the right time to buy has arrived. Otherwise they would be guilty of violating the basic principle of the Railways Act, 1921, namely, " efficient and economical working and management."

7. The position of railways as public utilities has prevented the British lines from effecting certain economies. As public utilities the railways cannot act with a free hand in abandoning tracks, stations, or other facilities merely because they are commercially unprofitable.[1] Public interest has to be protected, often at the expense of economy. Referring to two lines serving the same general area, but ten or fifteen miles apart, Sir Josiah Stamp says : " Both lines and establishments must remain open with pretty full costs, and service at local stations and their immediate districts must go on. . . . Where the strong line absorbs the weaker generally both must remain open."[2]

8. By increasing the size of the administrative units the amalgamation of railways created new problems which have tended to counterbalance the economies of large scale production.

[1] A good example of a situation where the public utility character of the railways prevents economies from being introduced is the case of an important provincial centre which before amalgamation was served by seven railways. Five of the seven were incorporated into one of the four amalgamated companies. The five goods depots are still maintained, due to the demands of the local traders. The only economy which has resulted is with respect to general administration : the five depots are administered from one executive office.

[2] Presidential address, Railway Students' Association, December 8, 1928.

While the Railways Bill was under discussion in the House of Commons in 1921, one of the members gave the warning: "It must be made certain that an amalgamation is not made so big and swollen as to be unmanageable as are the American Trusts."[1]

The Railway Gazette shared this fear in 1921: "The great risk of too big amalgamations is that general headquarters may get out of touch with local communities and the possibilities of development. There is a tendency toward Civil Service standards—correctness, not improvement."[2]

The following letter, which appeared in *The Spectator*, September 6, 1927, shows that the fears of *The Railway Gazette* were shared by one trader at least: "The traders on the Midland could approach the goods manager; they knew him and they could make a deal; now he is only a subordinate divisional officer of the L.M.S. The chief goods manager is not in Derby. He is a stranger with no interest in Derby, not particularly concerned in maintaining the old local relationship of friendliness and intercourse which formerly existed between the Derby goods manager and his local traders. The old *esprit de corps* both among the salaried staff and the wages staff is gone."

Dealing with this problem of size Sir Henry Thornton, in an interview with a representative of the *New York Herald Tribune*, expressed the opinion that by creating a large railway system a mere machine was brought into being, "with no body to kick and no soul to damn:"[3] "I think it would be wise to think twice before grouping large systems of railroads in the United States. The chief difficulty in the group plan, as I see it, is in the first place that finally you

[1] 142 H.C. 646. This was rather hard on American trusts!

[2] *The Railway Gazette*, April 1, 1921.

[3] *New York Herald Tribune*, December 6, 1925. Sir Henry at this time was President of the Canadian National Railway, a system containing a greater route mileage than all the British railways combined. While still General Manager of the Great Eastern Railway, he believed that "consolidation is the inevitable working of a definite economic law."—*The Railway Gazette*, May 21, 1920.

get railroads so large that the administration loses contact with the men."

Undoubtedly the tendency of large combinations is to separate railway management from the traders and from its own employees. In 1922, the General Manager of the North-Eastern Railway saw this result as a possibility, but not as a probability :[1]

" In these enlarged concerns there is an evident tendency for the central management to fall out of touch with local sentiments and requirements, and to disregard local differences in the application of general rules of action. . . . Let it be admitted at once that such developments are possible. It remains true, none the less, that they are improbable."

* * * * *

The problem of size has been brought to the foreground of discussion in the United States by the proposed merger of the Northern Pacific, Great Northern and Burlington Systems, involving 25,000 miles of road. The issues involved in this case are presented by the *Harvard Business Review*, July, 1928, as follows :

" It might well be supposed that the alleged economies of joint operation would be wiped out by the very unwieldiness of the new company.

" And yet it will be remembered that the principal economies in operation which are claimed for the unification are not the result of large scale operation as such, but of the peculiar situation which exists in the territory under consideration. If it is admitted that more economy and efficiency of operation can be obtained, the question of the management of the huge property itself remains. Perhaps the development of railroad organization will throw some light on the problem.

" The proponents of the unification point out that such a large consolidated system would call for new methods of organization which would promote the public interest.

[1] Sir Ralph Wedgwood, *The Economist*, September 16, 1922.

Along with centralization in all matters of policy affecting the consolidated system, there would be a process of radical decentralization so as to create in different parts of the consolidated system distinct units of management, each of which would be virtually autonomous except in matters of general policy. The consolidation, instead of removing the management farther from the employees and the public, might evolve methods to create closer contacts with them.

"The Harriman system at the height of its development was composed of four or five separate operating companies, each corporation with its own president and operating organization. In this way decentralization of operation was accomplished, but general policies were uniform and were controlled from a central office.

"Mr. Budd testified that the Great Northern and the Northern Pacific lend themselves especially well to operation under a single management, and that a most effective operating situation could be obtained by changing the operation so that, instead of two long lines from head-quarters at St. Paul, there would be two grand divisions, separated approximately by the Montana–South Dakota line, of 8,000 miles each. 'Under the present two-company arrangement, the operating and traffic executives of both companies must travel long distances to keep in contact with their organizations, and they must then double back over the same route to return to their St. Paul head-quarters. With the two systems unified and divided into eastern and western administrative units, the officials of each unit can make a loop trip over their territory and be back at head-quarters at the end of their trip, instead of having to double back from half-way across the continent, as they are obliged to do at present. . . . From the point of view of contact with their field organizations, unification will, I believe, virtually double the effectiveness of these officials.'

"The contemplated units of organization would be smaller than those which exist under the present

situation, and there is no reason to believe that efficiency in operation would suffer perceptibly merely because of the large size of the new company.

"Furthermore, in spite of the great mileage of the new company, the density of traffic would be thin in comparison to the great eastern systems. In fact, the number of employees, the amount of wages, the number and capacity of locomotives and cars, the amount of fuel and other supplies used, would all be less on the proposed system than on either the New York Central or the Pennsylvania systems. President Holden, of the Burlington, in his testimony before the Commission, compared the two eastern roads with one-fourth of all western lines, which represents a larger system than would result if the unification were carried through. Even though the mileage of the western roads would make their administration somewhat different from that of eastern lines, this comparison has a bearing on the question because density of traffic alone is a good test of administrative capacity.

"In summary, it may be said that the mere size of the Great Northern Pacific would probably neither add to nor detract from its efficiency in operation, but that certain factors other than size would enable the unified system to operate more economically than the various units can operate separately."

* * * * *

The four British railway groups vary in size from the Southern, with its 2,230 miles of line, to the London, Midland and Scottish, with its 7,200 miles.

In the United States, the nineteen largest railway systems which operate 50 per cent. of the trackage have an average of 7,000 miles; and if controlled lines are included, the average mileage is 9,800.

In the light of American experience, therefore, the British groups do not seem to be too large. In fact, it is the opinion of some that two of the groups are too small. Combining the Great Western with the Southern would form a system with approximately 6,200 miles of line.

The two considerations which should determine the size of a railway group involve traffic and administration.

With respect to traffic the ideal arrangement is one which produces balance: variety of products, movement in both directions to avoid empty mileage; and access to producing and consuming areas, including ports.

From the standpoint of administration a railway system should be kept within such bounds as will enable the highest officials to make inspections of the physical railway plant at stated intervals, to keep in touch with the divisional chiefs of the railway, and to be informed regarding the business and economic developments of the whole railway territory.

It is quite possible that in the early stages of amalgamation the size of the British groups has been a liability; but it is also quite as possible that, in the long run, the size of these railway systems will prove to be an asset.

9. One very important factor in the British railway situation which has prevented the introduction of certain economies is the private ownership of a large proportion of the rolling stock.

Approximately 50 per cent. of the wagons employed on British railways are privately owned. It is true that, under the Ministry of Transport Act of 1919,[1] the Minister is permitted "to make regulations prohibiting or restricting the use on railways of privately owned wagons;" but this power has not been exercised.

As a result of this wagon situation it has been impossible for the railways to introduce certain economies, particularly those with reference to shunting. Sir John A. F. Aspinall presents this point of view as follows:

"The ultimate ownership of all wagons by the railway companies, added to the introduction of larger wagons, will eliminate a very large proportion of shunting expenditure. The constant sorting and arrangement of the traders' wagons which have daily to be sent back to destinations ordered by the 6,450 separate people who own them is like the

[1] Ministry of Transport Act of 1919, 13 (5).

perpetual piecing together of a jig-saw puzzle with all the disadvantages of wasted work."[1]

The same point was stressed by Sir Eric Geddes when he claimed that if all wagons were owned by the railways, shunting expenses would be reduced by £2,000,000 to £3,000,000 per annum.[2]

10. One of the stock arguments in favour of consolidation is the economy of large scale purchasing. The general sentiment of British railway officials is, however, that no very great economies have been realized in this way. The larger companies, before amalgamation, had secured most of the advantages to be gained by bulk purchasing. Further, it is the policy of the companies to distribute their orders. Finally, the general policy of the larger combines to maintain fixed prices for supplies has in most instances prevented the railways from securing especially good bargains as a result of group purchasing.

* * * * *

Up to this point the economies of grouping have been analysed in a negative way: We have seen the difficulties in measuring economies, and we have examined the obstacles which have tended to prevent, or at least to retard, their achievement. We shall now consider the more positive aspects of the economies of grouping: the actual accomplishments which are to be attributed to amalgamation.

IV

The common-sense view of the amalgamation policy, from the standpoint of economies, is to regard it more as a tendency than as an achievement—as a process that is going on, rather than as an event that is past. Sir Eric Geddes himself has said that he believes " it will be a generation before the full effect of that alteration (amalgamation) can be obtained or given effect to."[3]

[1] *Proceedings of Institute of Civil Engineers*, Vol. CCXIV, p. 250.
[2] Fourth Gustave Canet Lecture, June 1, 1922.
[3] *Ibid.*

As a result of amalgamation the British railways have taken many definite steps in the direction of economies and improvements in service. In some instances the steps taken have been merely the planting of a seed, the fruition of which will be deferred for a long time; in other instances the seed has come to bud, if not to full bloom.

In the following sections cases will be presented to illustrate the progress that has been made and the tendencies leading to ultimate economies which have been set in motion by the amalgamation of the British railways. In developing this phase of our study, we shall discuss the following topics: first, the statement as to economies made to the Railway Rates Tribunal by the British railways in 1924; second, standardization; third, interchange of traffic; fourth, routing; fifth, financial stability; sixth, reduction in number of directors; seventh, construction and repair policy; eighth, dock improvements; ninth, administration.

1. The Railways were able to prove to the Rates Tribunal, in 1925, that from August, 1921, to June, 1924, economies due to amalgamation amounted to £1,200,000.[1]

The Railways Act, 1921, provided that in determining the standard revenue "the Tribunal shall, with a view to encouraging the taking of early steps for effecting economies in working and management expenses rendered by or in anticipation of amalgamation, take into consideration the economies effected by such steps already taken, and shall make such allowance as the Tribunal may consider fair and equitable to an amount not exceeding thirty-three and one-third per cent. of such economies."[2]

Sir Felix Pole comments on the limitations imposed on the railways under this section: "Unfortunately for the Companies, but fortunately for the users of railways, under the wording of the Act, the Companies could only claim an

[1] Proceedings of the Railway Rates Tribunal, June 19, 1924, May 25, 1925, June 9, 1925. The railways claimed £1,400,000.

[2] Railways Act, 1921, 58 (1), provision.

allowance in respect of the economies rendered possible by, or in anticipation of, amalgamation which had been effected as a result of specific steps taken since 1921. This means that their claim was practically limited to the saving of staff redundant on grouping, and claims could not be made for economies resulting from the common-user of wagons or from standardization of permanent way and rolling stock, purchase and distribution of stores, etc., many of which had been effected during the long period of Government control."

The economies claimed by the railways at this early date were as follows (in round numbers):

	£
Direction	53,600
Salaries and wages	1,125,000
Contribution to Superannuation Fund	36,000
Clothing of staff dispensed with	1,000
Closing of stations, yards and signal boxes	16,000
Cartage	35,000
Manufacture or bulk purchase of gas and electricity	17,000
Stores and standardization or bulk purchase	84,000
Train working[1]	43,000

The Railways Rates Tribunal allowed economies totalling £1,200,000, thus permitting the railways to add £400,000 to the standard revenue. However, the economies claimed in June, 1924, only a year and a half—in some cases one year—after amalgamation, throw little light on the results of grouping. These economies were merely initial steps in a larger programme which could develop only with the passing of time.

2. The standardization of equipment was one of the most important results to be expected from the amalgamation of British railways.

Before the war there was much less standardization of parts and equipment on British lines than on the American

[1] The Great Western was the only railway claiming economy under this head.

railways. Progress in developing uniformity in the United States has been very largely due to the work of the American Railway Association.

The object of the American Railway Association, as stated in its Articles of Association, is as follows: " By recommendation, to harmonize and co-ordinate the principles and practices of American Railroads with respect to their construction, maintenance and operation." The Mechanical Division of the Association is a combination of the Master Car Builders' Association and the American Railway Mechanics' Association. This Division has been successful in bringing about uniformity in construction and design of equipment and parts.[1] As an example, the following comparison for the two years, 1882 and 1921, shows the parts which railways had to keep on hand for repairs :

	1882	1921
Axles (different kinds) - -	56	5
Journal Boxes (different kinds) -	58	5
Couplers „ „ -	26	1
Brake Shoes „ „ -	20	1
Brake Heads „ „ -	27	1

* * * * *

Although standardization would seem to be the natural outgrowth of amalgamation, the Railways Act, 1921, was not content to let the matter rest entirely in the hands of the railways. It provided[2] that the Minister of Transport might, with certain limitations, require[3] one railway or group of

[1] Standards and specifications for one hundred and ten different parts of car equipment which have been adopted by American railways appear in the History of the Association published August 15, 1921. The annual meetings are reported fully in the *Railway Age*.

[2] Railway Acts, 1921, 16 (2).

[3] The limitations are : (1) The Railway and Canal Commission must be convinced that the capital expenditure involved will not jeopardize the interests of the stockholders ; and (2) the Minister must refer the proposals to a committee composed of representatives of the railways and technical experts.—Railways Act, 16 (2) and (3).

railways "to conform gradually to measures of general standardization of ways, plant and equipment (including methods of electrical operation, type, frequency, and pressure current)."

The Minister of Transport has not exercised this power. All standardization has been made on the initiative of the railways.

* * * * *

Before the passing of the Railways Act, 1921, there was much thought given to the problem of standardizing railway equipment. Thus in 1918 the Advisory Council of the Ministry of Reconstruction submitted a report on the standardization of railway equipment, the conclusions of which are as follows :[1]

(*a*) The standardization of wheels, axles, wheel centres, tyres, running gear, draw gear, buffing gear, bogies, brakes, and under frames should be dealt with immediately by the Engineering Standards Committee, on which all interested, including private builders and makers of materials, should be represented, and that when such essential parts have been standardized, the adoption of the standards should be gradually enforced.

(*b*) In view of the difficulties of standardizing complete locomotives and other rolling stock under existing circumstances, and of the excessive amount of dead weight now carried on British railways, the following recommendations are made :

1. That a committee be formed to investigate the existing conditions of structural gauges and clearances of the British railways and the loading and unloading arrangements at works and ports in order to ascertain how far uniformity could be introduced and tares reduced, and at what cost.

2. That the costs of construction of locomotives and rolling stock by the railway workshops and by private firms,

[1] Cmd. 9193.

respectively, be investigated and ascertained by competent independent accountants appointed by the Government.[1]

* * * * *

As illustrative of the developments in the standardization of equipment which have resulted from amalgamation, brief mention will be made of the present situation with respect to the following: (*a*) locomotives, (*b*) electrification, (*c*) brakes, (*d*) rails and fastenings, and (*e*) wagons.

(*a*) Among the schemes for standardization of equipment, the first to receive our attention concerns locomotives. There were—and still are—literally hundreds of types of locomotives on British railways. The present tendency is to reduce this number considerably. An illustration of this tendency is contained in the annual report of the Southern Railway for 1926: "At the time of the amalgamation we found that various constituent companies had no less than one hundred and thirty-five different types of locomotives. Nine types have been designed to meet the need."

A representative of the Great Western Railway gave evidence before the Railway Rates Tribunal showing the policy of his railway: "We took over 845 locomotives, and there were 145 different types in those 845 locomotives. We are now going to standardize those down to two types."[2]

Even though the actual standardization of locomotives may be delayed there is a definite policy among the four groups to standardize parts for existing types.

(*b*) Standardization with respect to electrification has been promoted by amalgamation. Sir Eric Geddes describes the

[1] An interesting point in this report is the recommendation that the consulting engineers and representatives of railways financed by British capital in foreign parts and in the Dominions be brought together to confer with the locomotive and wagon manufacturers in Great Britain, to determine what standardization can be effected, and that, with a view to the possibility of effecting partial international standardization, the separate committees should take cognisance of each other's investigations.

[2] James Milne, Assistant General Manager, Proceedings of the Railway Rates Tribunal, May 25, 1925, Question 5115.

conditions existing before the grouping of railways as follows : " Electrification of railways was growing up on exactly the same indiscriminate basis as had obtained in the wheel gauge, the loading gauge, and in the lack of standardization of locomotive stock, plant and equipment."[1]

This chaotic situation is described in the annual report of the Southern Railway for 1926 : " The Brighton Railway had equipped a portion of their inter urban services on the single-phase overhead system. The South-Western on one side of them had adopted the direct-current 600-volt third-rail system ; while the South-Eastern on the other side had at the time of amalgamation, almost committed themselves to a third system which would not have been interchangeable with either of the other two." In this case the direct-current third-rail system was adopted.

The Chief Operating Superintendent of the Southern Railway referred to this difficult problem and its solution as follows :[2]

> " I need not reiterate the events which followed the cessation of hostilities, as they are a matter of history and very well known to all ; but amongst other things, they led to the formation of the Southern Railway Company. One of the first problems which had to receive the attention of the Directors was to unify and standardize the electrification legacies they received from the constituent companies. It became evident that if the full advantages of unification under amalgamation were to be obtained, two different systems of electric traction could not be operated with economy, and that the overhead system on the old Brighton line could not remain sandwiched between the western and eastern sections of the railway worked on the direct-current third-rail system.
>
> " After much anxious thought and discussion, a decision was reached nearly two years ago to expend a further sum

[1] Fourth Gustave Canet Lecture, June 1, 1922.

[2] Mr. E. C. Cox, Paper on Southern Railway Electrification read before the Institute of Transport, April, 1928.

of £3,750,000 to complete the uniform equipment of the whole of the suburban lines."

(*c*) Before amalgamation the brake situation was very unsatisfactory on British railways. A correspondent of *The Financial Times*, November 15, 1920, remarked that "the United Kingdom is the only country in the world which has not adopted a single standard continuous brake."

British railways in the past have been equipped with two types of continuous automatic brakes, the Westinghouse and vacuum. The result has been either that trains have not been available for through runs, or that they have had to be equipped with dual fittings.

Taking the case of one of the groups, the London and North-Eastern Railway, we find the Great Northern, Great Central, and the Hull and Barnsley supplied with vacuum brakes; but on the North-Eastern, Great Eastern, and Great North of Scotland the Westinghouse brake was used.

On amalgamation approximately 50 per cent. of the locomotives and carriages had been dual-fitted. The management of the London and North-Eastern has now decided to adopt the automatic vacuum brake as the standard for the whole system. Five years at least will be required to carry out this programme.

This development on the London and North-Eastern has been referred to by the editor of *The Financial News* as "one of the most important developments in standardization that has yet resulted from the grouping."[1]

In the report of the Southern Railway for 1926, an account is given of the difficulty which that system had with the brake situation. The Brighton used the Westinghouse brake; the London and South-Western used the vacuum automatic brake. The result was that trains were not interchangeable. The Southern decided to spend £100,000 in order to install a uniform brake, the vacuum, on both railways.

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[1] *The Financial News*, February 11, 1928.

(*d*) On the old lines before grouping there were many types of rails and fastenings. Each one of the groups has now determined set standards. On the London, Midland and Scottish Railway, for instance, the position has been consolidated and the permanent way is standardized as follows :

1st Class lines.

British standard rails and fastenings.
Weight of rail, 95 lbs. per yard.
2,112 " chaired " sleepers per mile.
Weight of chair, 46 pounds.

2nd Class lines.

British standard rails and fastenings.
Weight of rail, 85 lbs. per yard.
2,112 " chaired " sleepers per mile.
Weight of chair, 40 pounds.

(*e*) A similar development has taken place regarding wagon design. On the lines comprising the London, Midland and Scottish Railway the capacity of wagons up to 12 tons varied considerably for open stock. At the time of amalgamation the following capacities (in tons) were in use : 3, 6, 7, 8, 9, 10, 12. The standard open and mineral wagon is now of 12-ton capacity and the parts are of uniform design.

* * * * *

That standardization along these and other lines will ultimately produce important operating and manufacturing economies for the British railways can hardly be doubted. If the amalgamation policy fulfils its promise in this direction alone, it will go a long way towards justifying itself.

3. The interchange of traffic between the railways has been very much simplified by the reduction in the number of companies under the Railways Act, 1921.

In Great Britain interchange is recorded by settlements through the Railway Clearing House. It operates on the same principle as the Clearing House in the banking world

where balances between members are struck and accounts settled.

The Railway Clearing House was organized in 1842 with nine railways as members. At the time of amalgamation this number had increased to fifty-eight. At present the Clearing House has seventeen members: the four amalgamated companies; six important joint lines; four English companies (including the Metropolitan and the Metropolitan District Railways); and three Irish companies.

The main work of the Clearing House consists in allocating the receipts between railways on traffic which moves over two or more lines; in working the "common user" of wagons; and in handling such accounts as demurrage and mileage charges which arise in connection with the movement on foreign lines of carriage stock and wagons not in the "common user" pool.[1]

By the reduction in the number of interchange points and in the number of lines, obviously the work of the Railway Clearing House is materially reduced. Thus the number of entries at junction points recorded by the number-takers shows a decline, as the following indicates:

Year	Entries at Junction Points
1897 - -	19,000,000
1912 - -	20,000,000
1926 - -	14,500,000

Although the permanent employees of the Clearing House have been protected in the same manner as have the railway men, their number has been reduced from 3,400 in 1921 to 2,650 at the present time.

* * * * *

The "common user" principle of wagon distribution which has just been mentioned in connection with the work

[1] Mr. P. H. Price, *Journal of the Institute of Transport*, May, 1926.

of the Clearing House is an important factor promoting economy on British railways. Although it was not the product of the amalgamation brought about by the Act of 1921, it deserves to be mentioned among the schemes of " efficient and economical management " which have been introduced within recent years.

Before the war empty wagons were generally returned to the owning company. This obviously caused a great deal of empty mileage. On January 1, 1917, the " common user " scheme was introduced. Under this arrangement, wagons up to 12 tons[1] capacity are looked upon as common property forming part of the railway pool. Actual ownership is now no longer important. " It will be gathered from this that the adoption of ' common user ' has resulted in a curtailment of the haulage of empty wagons, and has considerably reduced the work in station yards and sidings."[2]

4. Amalgamation has tended to promote more economical routing of traffic and passenger trains. Alternative routes have been provided so that trains can be moved to the best advantage, taking into consideration distance, gradients, and density of traffic. Sir Eric Geddes announced confidently that " in one group alone several millions will be saved by the freedom of routing traffic over other lines in the group which hitherto carried inadequate loads."[3]

5. Amalgamation has brought about a condition of greater stability in the railway structure as a whole. " The small lines, most of them financially unsuccessful, became part and parcel of a sound organization."[4] Associated with this financial security is the advantage which the stockholders of obscure railways obtained in exchanging their securities for those of the amalgamated companies. *The Times* commented on the positive advantage in the " greater market-

[1] There are many exceptions to this.

[2] Mr. P. H. Price, *Journal of the Institute of Transport*, May, 1926.

[3] Fourth Gustave Canet Lecture, June 1, 1922.

[4] Sir Sam Fay, *Modern Transport*, October 7, 1922.

ability that attaches to a large consolidated stock as compared with the smaller issue of a constituent line."[1]

6. Under railway grouping the number of directors has been reduced from 1,300 to 100, approximately. Although the annual saving in fees and expenses is negligible, possibly £50,000, the administrative gains are undoubtedly considerable. As one Member of Parliament put the case: "The Government had to take over concerns managed by one hundred and twenty boards of directors, many of whom directed no one but themselves, who had neither rolling stock nor staff, but who successfully used their influence against every progressive suggestion that was made by the large companies."[2]

7. One of the expected results of amalgamation was the development of large scale production methods in the railway manufacturing and repair plants.

Under the conditions existing before grouping each constituent company had its own staff of engineers and, in many cases, its own shops for construction and maintenance. This situation naturally resulted in multiplicity in designs; it also was responsible for the costly method of production in terms of small units.

Under the grouping scheme the British railways will ultimately be able to concentrate their manufacturing and repair shops. By this policy they will be in a position to reap the benefits of specialization and volume of output.

Although in some instances the British railways have had to proceed slowly in carrying out the policy of concentration, there are many evidences of accomplishment.

* * * * *

The policy of the London, Midland and Scottish Railway may be cited as an illustration of the effect of amalgamation in promoting specialization in construction and repairs.

[1] *The Times*, October 25, 1922.

[2] 142 H.C. 652.

Before the grouping the following was the shop situation of the constituent companies :

Old Company	Place	Work Performed
ENGLAND :		
London & North Western	Crewe -	Locomotives constructed and repaired. Steel rails rolled. Carriages repaired.
Midland - - -	Derby -	Locomotives constructed and repaired. Carriages and wagons constructed and repaired.
Lancashire & Yorkshire -	Horwich -	Locomotives constructed and repaired.
London & North Western	Wolverton	Carriages and wagons constructed and repaired.
London & North Western	Earlestown	Wagons constructed and repaired.
Lancashire & Yorkshire	Newton Heath	Carriages and wagons constructed and repaired.
North Staffordshire -	Stoke-on-Trent	Locomotives repaired.
Furness - - -	Barrow-in-Furness	Locomotives repaired.
SCOTLAND :		
Caledonian - - -	St. Rollox	Locomotives constructed and repaired. Carriages and wagons constructed and repaired.
Glasgow & South Western	Kilmarnock	Locomotives constructed and repaired. Carriages and wagons constructed and repaired.
Glasgow & South Western	Barassie -	Carriages and wagons constructed and repaired.
Highland - - -	Inverness -	Locomotives repaired. Carriages repaired. Wagons constructed and repaired.

Since amalgamation the workshop at Stoke-on-Trent has been abandoned entirely. The Derby locomotive workshops are now responsible for the maintenance of all compound locomotives. New locomotives are no longer being built at Kilmarnock ; this shop is limited to repairs. In the future, it is proposed to confine new construction to Crewe and Derby.

In the manufacture and repairs of wagons and carriages there is a definite policy of concentration and specialization. Thus no new vehicles are being constructed at Kilmarnock, Barassie, or Inverness ; these workshops are limited to repairs and demolition. The Earlestown workshop is responsible for the construction of mineral wagons only. The Derby workshops[1] specialize mainly on open goods wagons as far as merchandise stock is concerned. At Newton Heath the workshops concentrate on covered merchandise stock and particular types of carriages.

* * * * *

There is evidence that the workshop policy of the London, Midland and Scottish Railway is already producing economies ; costs have been reduced ; and the proportion of stock awaiting repairs is the lowest since the company was formed.[2]

Comparing 1927 with 1925 the manufacturing cost of building one particular type of vehicle has fallen 30 per cent. This result is attributed to the " improved manufacturing methods which have been installed."[3]

[1] The Carriage and Wagon shops at Derby are an excellent example of the beneficial results of grouping. The volume of production is such that the management has been able to " fordize " the process of manufacturing. The men work on a definite schedule ; they are highly skilled in their jobs. The author has seen the framework of a carriage set up in thirty minutes with the precision and dexterity of a team of highly trained men. The scientific routing of each job from its initial stages to the finishing processes is evidence of intelligent management. Before the war, however, because of the smaller units of production, these results were not obtained.

[2] Annual Report, 1927.

[3] *Ibid.*

The proportion of stock awaiting repairs is comparatively low, "owing to the introduction of modernized appliances and methods." In 1925, the number of locomotives awaiting repairs was 13·47 per cent.; at the close of 1927, it was 8·66 per cent. "The difference is better realized when it is explained that this represents the release of 500 locomotives which, at present prices, would cost about £2,225,000."

Realizing the economies which have thus resulted from improved manufacturing methods in the company's shops, the President of the London, Midland and Scottish Railway concludes: "The capital expenditure of the past and the reorganization of the past are thus bearing fruit; and although the cost to the Company has been lowered, the men have been able to earn more money."[1]

8. As a result of amalgamation improvements have been made in British dock facilities. Considering the importance of international trade to Great Britain, this result is especially significant.

The policy of the Great Western Railway in dealing with the problem of ports and harbours will be briefly described as an illustration of one of the effects of railway grouping under the Railways Act, 1921.

At the time of amalgamation the Great Western Railway came into possession of a vast system of docks. In many cases the dock facilities were antiquated and inefficient for handling either coal or general merchandise cargo. The Great Western undertook to bring about improvements on a large scale. These improvements applied not only to the docks and harbours, but also to the rolling stock of the Great Western itself. This latter problem will be described before discussing the larger programme.

* * * * *

Early in 1922, the question of the size of mineral wagons which was most economical came up for decision. The management decided to adopt the 20-ton wagon as the

[1]Annual Report, 1927.

standard size for the shipment of minerals. In arriving at this decision the Great Western believed that it was promoting not only its own interests, but also the interests of the mine owners and the ship owners.

From the standpoint of the mine owners the Great Western was urging the adoption of a facility which would require fewer wagons at less capital cost per ton, less shunting expense, and a smaller amount of siding room. From the point of view of the ship owners the larger wagon meant a quicker turn round.

That the introduction of the 20-ton truck was a direct result of the amalgamation is brought out in the evidence of a representative of the Great Western Railway before the Rates Tribunal :

Q. Do you consider that the introduction of the 20-ton truck is the result of amalgamation ?

A. Undoubtedly. Under the former arrangement we could never have got all the different companies to convert their tips at the docks ; and unless the companies had some assurance that the majority of the tips in South Wales would be converted they would not have altered their screens at the collieries.[1]

* * * * *

To supplement its wagon programme for the carriage of minerals the Great Western was compelled to modernize the docks in South Wales and those in Devonshire. The most important improvements were made at Cardiff, Newport, Swansea, Barry, Port Talbot, Penarth and Plymouth.

Selecting the Cardiff developments as typical of the modernization policy of the Great Western, we find extensive changes made in such matters as storage facilities, coal tips, generation of hydraulic power, transit sheds, and mechanical appliances.

For the purpose of accommodating export traffic, the storage capacity for coal and general cargo has been increased.

[1] Proceedings of Railway Rates Tribunal, May 25, 1925. Question 5898.

At the present time the added storage capacity represents additional room for 3,300 wagons.

To handle the 20-ton wagons changes had to be introduced with respect to coal tips, feed roads, and weighing machines. In 1921, only three coal tips were capable of adaptation for wagons of this size. This number has been increased to eleven.

Before the amalgamation hydraulic power for working the mechanical equipment—hoists, cranes, locks, bridges—was produced in ten power stations. This scheme is now entirely remodelled. The number of stations has been reduced to four. Electricity has been adopted for power in the central station; the most modern steam plants are retained for the three smaller stations.

To meet the needs of general cargoes the Great Western has increased the capacity of its transit sheds at Cardiff. Three large sheds, equipped with electric conveyors for bulk handling of grain and general cargo, were purchased from the Government. Overhead conveyors have been constructed, thus connecting the sheds.

In the harbour, a floating grain elevator capable of discharging 120 tons of grain per hour, has been constructed. Six modern hydraulic cranes have been erected. The inner lock entrance to the East Dock has been cut away, so that vessels with a beam of 48 feet 6 inches can be accommodated, an increase of 37 inches. The swing bridge near the entrance to the docks, which was formerly worked by hand power, is now operated by hydraulic power, thus improving the service of the bridge for traffic and the movement of ships.

* * * * *

The improvements in rolling stock and in dock facilities which have been described have gone ahead at a faster pace than the business development of the territory served by the Great Western Railway. With the revival of the coal trade, however, and the restoration of business generally, the capital expenditure involved in creating an efficient plant should be amply justified.

9. Economies in certain details of railway administration have resulted from amalgamation.[1] The record keeping and accountancy work tend to be concentrated into a few large offices where computing machines make possible a greater output of work. Railway publicity is on a higher level; the quality of advertising is improved; its general appeal is broader. The printing of tickets is centralized. The number of foreign agencies has been reduced. In the delivery of goods, duplication of service has been eliminated. Forms and stationery have been standardized. The law offices of subsidiary companies have been merged, as is true of the offices of engineers, surveyors, architects and railway police.

* * * * *

Regarding the economies of amalgamation, we have seen that the opinions of responsible men have differed; that these economies have been difficult to measure; and that there have been conditions in the British railway position which have prevented, or at least retarded, their complete realization. We have also seen some results which may fairly be attributed to amalgamation: standardization, simplification of traffic exchange, economical routing, financial stability, reduction in the number of directors, large scale production methods, improvements in dock facilities, and economies in the details of business administration.

While the experiment of amalgamation has been in process, the operating expenses of the British railways have fallen. Railway expenditure was 7 per cent. lower, while train miles were 11 per cent. greater in 1927, as compared with 1922. Some share in this result should be credited to the policy of amalgamation. Thus it seems that although

[1] In the report of the proceedings of the annual meeting of the London, Midland and Scottish Railway, February 21, 1928, the following statement of the Chairman appears: "Attention has been directed at previous meetings to the decrease in salaries chargeable to the account. Each year since 1922 has shown a decided diminution. The figures for 1922 were £850,000; it is £555,000 for last year, a decrease of 35 per cent. due to reorganization rendered possible by amalgamation."

too much was anticipated by the most enthusiastic advocates of this policy, too little was expected from it by those who were most sceptical.

In a broad sense, however, the important economies which should follow as a result of railway grouping are those which will accumulate with time.

* * * * *

In the crucible of the post-war decade the British railways have been remade. The pattern of their design is larger; the concentration of their power is greater. It is certain that, even if it were possible, few British railwaymen would care to return to the old *régime*.

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